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UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

STRUCTURAL ADJUSTMENT ISSUES IN THE WORLD ECONOMY

Report by the UNCTAD secretariat

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Foreword

In July 1987, the United Nations Conference on Trade and Development agreed, in paragraph 105 (3) of the Final Act of UNCTAD VII, that:

> "The annual review of protectionism and structural adjustment in the Trade and Development Board should continue under the existing mandate and should be improved to have a wider coverage taking into account the specific interest of developing countries. The review should include analysis of the principal elements and effects of structural adjustment policies, including trade policies, and of the various policy options, keeping in mind the importance of resources and technology in the process of development and national development priorities and objectives."

The UNCTAD secretariat has therefore considered it appropriate to prepare the present report. The report provides an analysis of the principal structural adjustment problems in the world economy, their major causes, and the policy issues to which they give rise.

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INTRODUCTION

1. Structural adjustment - the shift of factors of production from less productive to more productive activities - promotes economic efficiency and increases incomes. A country may be competitive in many products and services at any given moment, but the mix will surely vary over time. Such dynamism is a healthy sign.

2. International trade plays a crucial role in transmitting adjustment pressures. There is, in fact, a beneficial relationship between adjustment and trade, with either one acting as a cause of the other. Trade promotes adjustment by introducing foreign competitors with different cost structures and production methods into the domestic market; and the process of adjustment promotes trade as shifts in production, in line with changing competitive positions, creates new export supply capabilities in the domestic industries and open up new market opportunities for foreign suppliers.

3. National economic policies which foster adaptation to structural changes in demand and supply conditions are crucial for the achievement of sustained growth in world production and trade. Problems arise in the international trading system when countries are unwilling to adjust and, instead, pursue policies which provide protection and support for industries that are no longer able to meet the challenge of the foreign market-place. Where structural adjustment is delayed, trade expansion and economic efficiency suffer.

4. Particular concern needs to be directed to policies which are potentially as well as actually disruptive of the trade prospects of developing countries. The structural policies of the developed market economies should promote the changes in patterns of production and trade that result from shifts in comparative advantage. The adoption of adjustment assistance programmes is an essential part of such policies, but there is a need to make adjustment programmes more responsive to changing conditions and to promote restructuring more effectively. Government assistance to manufacturing industries in difficulties - where adjustment pressures are unlikely to relent in the medium term - must definitely contribute to adjustment.

5. The 1980s were characterized by a rapid expansion of developing countries' exports, slow growth of world industrial production and major structural adjustment in developed and developing countries. While world industrial production grew at an average rate of 3 per cent per annum between 1980 and 1988, world exports of manufactures rose twice as fast, resulting in a significant intensification of interpenetration of world economies. At the same time, developing countries' exports of manufactures, as a group, grew at the rate of 12 per cent per annum. A sustained recession of industrial production during the first half of the 1980s aggravated the pressures for adjustment emanating from an accelerated rhythm of technological change, major shifts in competitiveness among major trading partners, substantial volatility of prices and exchange rates and the emergence of new exporters. The improvement in the economic situation for industry since the mid-1980s has, in turn, contributed to a widespread, though not general, alleviation of pressures for industrial adjustment.

6. This report highlights, in chapter I, global trends in international trade and output, and analyses the import capacity of developing countries and their absorption of manufactures from developed market economies. Chapter II examines policy aspects of structural adjustment in agriculture and industry in developed market-economy countries, with particular focus on labour-market policies, technology policies and regional policies, and their implications for trade with developing countries. Chapter II also analyses various approaches to the trade and industrial policies of developing countries and evaluates policy options in the light of past experiences. Chapter III presents some preliminary results of the analysis of certain major aspects of structural adjustment and structural policies in selected industries which are of particular export interest to developing countries: iron and steel, automobiles and components, consumer electronics, textiles and clothing. These four sectors accounted for more than half of developing countries' export increase in the 1980s. While taking into account the fact that a major part of structural adjustment in industry took place among developed countries and their enterprises, Chapter III concentrates on aspects of structural change involving developing countries.

7. The report does not attempt an assessment of the future course of structural developments in the socialist countries of Eastern Europe. The dramatic changes under way in these countries make such an assessment a difficult undertaking. While the political landslides are bound to have far-reaching economic implications, economic reforms are unlikely to take place at the same rapid pace. Broad-based fundamental changes in the management and structure of national economic systems will probably develop over longer periods, requiring time for their consolidation. Events so far point to a much wider role for market processes in the future conduct of the economies of a number of Eastern European countries, but the final outcome of reform efforts and the implications for production and trade cannot be predicted with any degree of accuracy in the current turbulence. It is clear, however, that the mobilization of financial resources for new investment will be a crucial element in sustaining economic reforms and accomplishing industrial restructuring and trade expansion.

8. Similarly, the future course of economic reforms and restructuring in China is by no means a settled issue. The aim of reforms is seemingly to raise the efficiency of enterprises at the micro level, while at the same time retaining sufficient elements of central planning to guide the economy on a particular course and provide macro-economic balance. Finding the right mix between plan and market has proved to be difficult and this could result in a moderation of the pace of reforms. The next three years have apparently been designated as a period of economic consolidation, with the emphasis on controlling inflation by sacrificing some growth.

Chapter I

RECENT TRENDS IN INTERNATIONAL TRADE AND OUTPUT

A. Global trends in international trade and output

9. The value of world exports (expressed in United States dollars) has increased quite markedly since 1985, reflecting both strong volume growth and, particularly, price increases stemming mainly from the depreciation of the dollar (see table 1). The share of developing countries in world trade declined significantly, from 24 to 20 per cent, mainly on account of the fall in oil prices. In fact, dollar export prices for developing countries as a whole, and for Africa and West Asia in particular, declined significantly in the period 1985-1988, while export prices for developed market economies rose (see table 2). Among developing countries, the only marked exception to the general trend was South and South-East Asia, which continued to increase their share in world exports (from 8.8 per cent in 1985 to 10.2 per cent in 1988).

10. In volume terms, world exports grew very rapidly in 1988, accentuating a trend that had begun in 1986 (see table 3). In fact, since 1985, the growth of world trade has been faster than that of world output (see table 4). In 1988, world trade expanded at a rate of 8.5 per cent, while world output rose by only 4.1 per cent.

11. The major factor explaining the rapid expansion of world trade since 1985, and particularly in 1988, was a quickening in the pace of growth in the developed market-economy countries and rapid economic expansion in the developing exporters of manufactures of South and South-East Asia. In particular, the imports of the latter countries grew at a very rapid pace (30 per cent) and gave a significant boost to economic activity in the developed market-economy countries which supply their markets. By contrast, economic activity remained depressed in other developing countries which have traditionally been significant markets for exports from developed market-economy countries (Africa, Latin America and West Asia). While the exporters of manufactures in South and South-East Asia appear to be launched on a path of self-sustained growth, vast segments of the developing world (in particular, Africa and Latin America) have been unable to generate enough momentum to break out of the crisis of the 1980s.

12. Behind the acceleration in the pace of world output and trade since 1985 lies an investment boom centred mainly in Japan, Western Europe and the developing countries of South and South-East Asia which have become significant exporters of manufactures (see table 5). The growing interdependence of the developed market-economy countries in capital goods and the increasing incorporation of some developing countries of South and South-East Asia into the network of intra-industry exchanges in capital goods explains to some extent the faster growth in world trade than in world output.

Table 1

Value of total exports by region, 1970-1990

(Billions of dollars and percentages)

Year:	Value						Share of total world's exports		
	1970	1980	1985	1986	1987	1988	1970	1985	1988
WORLD	321.1	2 049.4	1 921.7	2 069.7	2 439.8	2 775.6	100.0	100.0	100.0
Developed market-economy countries	216.1	1 224.1	1 230.3	1 421.7	1 684.8	1 931.6	70.4	65.9	71.3
Europe	137.2	812.4	750.1	915.0	1 103.2	1 225.6	42.7	39.0	44.2
Japan	19.6	132.5	179.8	208.3	228.7	264.3	6.1	9.4	9.5
North America	59.8	279.2	300.4	298.4	352.9	441.7	18.6	15.6	15.9
Developing countries	59.9	591.5	462.8	403.3	491.5	557.7	18.7	24.1	20.1
Africa	12.7	98.1	61.6	46.6	46.8	46.2	4.0	3.2	1.7
Latin America	18.2	111.4	110.7	86.8	94.5	109.8	5.7	5.8	4.0
South and South-East Asia	15.0	148.0	169.1	176.0	228.5	282.1	4.7	8.8	10.2
East Asia four a/	6.6	78.4	101.8	114.6	154.3	193.6	2.0	5.3	7.0
ASEAN four b/	4.7	47.9	48.5	42.0	52.6	63.8	1.5	2.5	2.3
West Asian oil-exporting countries c/	10.1	211.0	94.4	66.6	83.5	81.9	3.2	4.9	3.0
Other West Asia d/	3.9	23.0	27.0	27.3	33.2	37.7	1.2	1.4	1.4
Socialist countries of Eastern Europe	33.2	162.1	164.8	178.4	182.7	191.4	10.3	8.6	6.9
China	1.9	18.7	27.3	30.9	39.3	47.2	0.6	1.4	1.7

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Hong Kong, Republic of Korea, Singapore, Taiwan Province of China.

b/ Indonesia, Malaysia, Philippines, Thailand.

c/ Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, United Arab Emirates.

d/ Includes developing countries of Europe (Cyprus, Malta, Turkey, Yugoslavia).

Table 2

Export price indices, by region, 1970-1988

(1980=100)

	1985	1986	1987	1988
WORLD	86.2	87.5	99.2	103.9
Developed market-economy countries	86.9	96.7	110.3	117.6
Europe	78.7	90.6	106.6	113.0
Japan	94.8	114.0	123.6	133.0
North America	109.8	107.8	115.0	123.0
Developing countries	87.3	70.0	79.5	80.6
Africa	83.0	57.5	66.0	63.2
Latin America	82.4	73.7	77.9	82.7
South and South-East Asia	89.8	81.7	90.7	97.5
East Asia four a/	91.2	86.8	96.2	104.6
ASEAN four b/	85.7	68.7	77.1	80.6
West Asian oil exporters c/	91.9	54.1	67.1	54.7
Other West Asia d/	77.3	84.0	97.5	110.1
Socialist countries of Eastern Europe	82.3	76.0	81.3	79.3
China	79.2	67.1	73.8	78.9

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

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d/ Includes developing countries of Europe (Cyprus, Malta, Turkey, Yugoslavia).

Table 3

Average annual growth rates of export volumes, 1970-1990

(Percentages)

	1970-1980	1980-1985	1985-1987	1988	1989 a/	1990 a/
WORLD	4.3	1.7	5.0	8.5	6.5	6.7
Developed market-economy countries	5.7	2.7	3.7	7.5	6.8	6.8
Europe	5.1	3.2	4.2	4.8	6.5	7.0
Japan	11.0	7.4	-1.2	7.4	7.0	9.5
North America	5.5	-0.4	5.9	17.0	7.5	5.0
Other	7.0	-3.3	0.7	5.0	8.0	6.5
Developing countries	2.1	-2.0	6.9	11.3	7.2	6.2
Africa	0.5	-5.4	-2.2	2.9	3.2	1.0
Latin America	-0.7	3.8	-5.0	9.5	5.7	5.5
South and South-East Asia	9.0	4.9	15.7	14.8	9.0	10.0
East Asia four b/	11.9	7.3	19.8	15.4	10.5	12.9
ASEAN four c/	6.9	3.4	9.8	16.2	16.0	14.0
West Asian oil exporting countries d/	0.8	-13.4	13.3	13.4	5.0	10.0
Other West Asia e/	6.6	8.7	-1.2	0.6	3.5	4.5
Socialist countries of Eastern Europe	2.5	4.3	6.0	7.5	4.2	3.4
China	12.6	13.0	24.2	12.3	7.4	12.0

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Forecasts.
b/ Hong Kong, Republic of Korea, Singapore, Taiwan Province of China.
c/ Indonesia, Malaysia, Philippines, Thailand.
d/ Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, United Arab Emirates.
e/ Includes developing countries of Europe (Cyprus, Malta, Turkey, Yugoslavia).

Table 4

Average annual rates of growth of GDP, by region, 1970-1990

(Percentages)

	1970-1980	1980-1985	1985-1987	1988	1989 a/	1990 a/
WORLD	3.8	2.8	3.3	4.1	3.5	3.3
Developed market-economy countries	3.2	2.5	3.0	3.7	3.2	3.3
Europe	3.2	1.8	2.7	2.8	4.0	3.0
Japan	4.6	3.9	3.3	5.7	4.5	4.4
North America	2.9	2.7	3.3	3.9	3.1	2.9
Developing countries	5.2	2.1	3.5	3.4	2.9	3.3
Africa	4.5	1.6	2.0	2.1	2.2	1.8
Latin America	5.4	0.5	2.5	0.9	0.8	2.4
South and South-East Asia	5.8	5.3	6.3	7.8	5.8	5.2
East Asia four b/	9.0	6.8	10.8	8.3	8.2	6.2
ASEAN four c/	7.2	3.5	4.1	6.8	4.4	4.2
West Asian oil exporters d/	4.2	0.5	0.4	1.0	2.3	2.9
Other West Asia e/	5.9	2.6	3.7	2.5	2.3	3.0
Socialist countries of Eastern Europe	5.1	3.6	3.1	5.0	3.5	3.5
China	5.6	10.0	9.3	11.2	5.5	5.5

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Forecasts.
b/ Hong Kong, Republic of Korea, Singapore, Taiwan Province of China.
c/ Indonesia, Malaysia, Philippines, Thailand.
d/ Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, United Arab Emirates.
e/ Includes developing countries of Europe (Cyprus, Malta, Turkey, Yugoslavia).

Table 5

Average annual growth of real investment, by region, 1970-1990

(Percentages)

	1970-1980	1980-1985	1985-1987	1988	1989 a/	1990 a/
WORLD	3.8	2.8	3.3	4.1	3.5	3.3
Developed market-economy countries	2.2	1.6	5.1	8.7	5.7	5.5
Europe	1.4	-0.9	5.6	7.5	6.5	6.5
Japan	2.8	3.0	6.9	13.5	6.7	5.7
North America	3.3	4.3	3.4	6.8	3.8	3.9
Developing countries	5.2	2.1	3.5	3.4	2.9	3.3
Africa	8.8	-2.1	-2.0	1.7	1.5	1.0
Latin America	7.2	-7.4	-0.3	-5.0	0.0	2.0
South and South-East Asia	8.1	5.4	2.0	9.3	8.5	7.5
East Asia four b/	11.3	6.1	10.5	10.0	11.0	11.5
ASEAN four c/	10.4	4.3	-1.9	12.4	15.0	16.0
West Asian oil-exporting countries d/	15.6	6.4	-4.4	2.0	2.0	2.5
Other West Asia e/	6.1	1.0	2.6	1.0	3.5	3.2
Socialist countries of Eastern Europe	-	-	-	-	-	-
China	8.1	16.8	13.1	12.0	10.5	12.0

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Forecasts.
b/ Hong Kong, Republic of Korea, Singapore, Taiwan Province of China.
c/ Indonesia, Malaysia, Philippines, Thailand.
d/ Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, United Arab Emirates.
e/ Includes developing countries of Europe (Cyprus, Malta, Turkey, Yugoslavia).

13. Throughout the 1980s, the strongest export growth has been recorded by manufactures (see table 6). The rate of growth of world export volume in manufactures in 1988 was almost 10 per cent. And in this sector, developing countries as a whole, with a growth rate of over 14 per cent, continued to outperform other regional groups in the world economy. Of course, there were wide divergences in performance as between different developing regions (see table 7). While the countries of South and South-East Asia recorded very rapid growth rates of manufactured exports, in Africa such exports stagnated. On the other hand, Latin American exports of manufactures staged a recovery, after severe declines in 1985-1987. The turn-around can be partly attributed to the lagged effects of policy changes in earlier years in some of these countries. 1/

14. Certain developments in the international economy have served to widen the performance gap between the South and South-East Asian exporters of manufactures and other developing countries. In response to the appreciation of the yen, Japanese corporations have increased their relocation of labour-intensive manufactures and have also relocated labour-intensive processes to the developing countries of South and South-East Asia. Another boost to these economies' exports has been the fast pace of expansion in domestic demand in Japan. Most of the increase in Japan's imports from developing countries has come from South and South-East Asia, a region with which Japan has growing economic ties. Other potential developing country exporters of manufactures have encountered severe difficulties in penetrating the Japanese market. Trade among themselves is also becoming increasingly important for the developing economies of South and South-East Asia.

15. Several Latin American countries (especially Argentina, Brazil and Mexico) are also important exporters of manufactures. Exports from these countries as a group have been rather erratic in recent years, owing mainly to low rates of investment and output growth in the manufacturing sector. The main exception has been Mexico, where export-oriented manufacturing investment, particularly by foreign corporations, has been strong.

16. As regards export markets for food and tropical beverages, in 1988 they were strongly influenced by the drought which affected harvests, mainly in North America, but also in Central and South America. This explains the very significant price increases observed for these commodities in that year. Although the value of trade in these sectors has increased strongly since 1985, volume growth has been erratic, with very strong growth rates observed in 1986 and 1987 and a relative stagnation in 1988. It is important to recall that, among developing countries, in North Africa declining food security is becoming a serious threat, as a result of drought, cricket invasions and strong population increases. In sub-Saharan Africa, in spite of increasing output of tropical beverages and tobacco, declining prices resulted in lower export earnings in 1988. By contrast, in the ASEAN countries, strong increases in exports of rice from Thailand and of vegetables oils and protein meals from Malaysia allowed these countries to benefit fully from the price increases which occurred in these commodities in 1988.

Table 6

Average annual rate of growth of export volume, by major product group, 1970-1990

(Percentages)

	1970-1980	1980-1985	1985-1987	1988	1989 a/	1990 a/
		World exports				
All products	4.3	1.7	5.0	8.5	6.5	6.6
Manufactures	7.1	3.5	4.6	9.6	7.5	7.8
Food and beverages	4.2	3.1	10.0	1.6	1.3	4.7
Other non-oil primary commodities	2.3	1.1	4.2	3.8	4.0	3.7
Oil	-0.2	-4.2	4.0	10.9	7.3	5.3
		Exports of developing countries				
All products	2.1	-2.0	6.7	11.3	10.3	9.6
Manufactures	12.7	4.5	13.7	14.3	13.4	10.4
Food and beverages	1.7	4.2	7.1	5.2	6.0	6.5
Other non-oil primary commodities	1.6	1.2	-1.8	8.6	5.5	5.5
Oil	0.3	-13.5	13.6	14.3	10.0	9.5

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Forecasts.

Table 7

Average annual rates of growth of manufactured exports, in volume, by major country group, 1970-1990

(Percentages)

	1970-1980	1980-1985	1985-1987	1988	1989 a/	1990 a/
WORLD	7.1	3.5	4.6	9.6	7.5	7.8
Developed market-economy countries	6.8	2.9	2.8	8.8	7.6	7.8
Europe	7.1	-0.7	7.3	19.8	8.1	8.5
Japan	5.8	3.4	2.7	6.1	7.2	7.4
North America	11.5	7.6	-1.6	7.5	8.8	8.6
Developing countries	12.7	4.5	13.7	14.3	13.4	10.5
Africa	7.1	-10.2	11.9	1.0	6.6	10.7
Latin America	11.2	3.4	-5.0	14.6	7.4	7.3
South and South-East Asia	14.4	7.5	22.2	17.0	14.9	14.8
East Asia four b/	17.2	8.1	22.0	16.2	14.3	13.2
ASEAN four c/	11.5	10.3	27.6	22.7	18.0	21.3
West Asian oil exporting countries d/	17.3	-13.1	9.0	2.4	9.2	7.4
Other West Asia e/	11.0	9.4	-2.8	2.6	2.1	2.5
Socialist countries of Eastern Europe	3.5	6.4	0.7	6.1	3.2	4.5
China	13.7	13.3	34.0	16.0	8.3	10.3

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Forecast.
b/ Hong Kong, Republic of Korea, Singapore, Taiwan Province of China.
c/ Indonesia, Malaysia, Philippines, Thailand.
d/ Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, United Arab Emirates.
e/ Includes developing countries of Europe (Cyprus, Malta, Turkey, Yugoslavia).

17. The buoyancy in economic activity and investment in most developed market economies led to significant price increases for most non-oil primary commodities in 1987 and 1988, particularly aluminium, nickel, zinc, copper and, to a lesser extent, iron ore, phosphates, timber, natural rubber, cotton, wool, hides and sisal. Supply-side problems prevented several African countries from responding to increased world demand. But yet again, ASEAN countries strongly increased the supply of rubber and timber. Export volumes from other South Asian countries also rose strongly, as India and Bangladesh increased their exports of iron ore and jute. China increased its exports of timber and raw cotton.

18. During the 1980s, most oil exporters have experienced large swings in their export earnings. This was caused by the major price fluctuations of crude petroleum. The growth in exported volumes has accelerated since 1985, although export earnings have fallen worldwide by 7 per cent. For many oil-exporting developing countries, the fall in oil prices caused or intensified a serious economic crisis. For other developing countries which are net oil importers, lower oil prices have provided considerable balance-of-payments relief.

19. World trade in 1989 and 1990 is expected to continue on a favourable trend, with perhaps a slight deceleration of growth rates. 2/ Investment in Western Europe, Japan and the developing countries of South and South-East Asia could continue to provide a significant boost to world trade, particularly in capital goods. The restructuring of the Japanese economy and the resulting investments in South and South-East Asia are also likely to continue up to 1990. This may well lead to a strengthening of intra-industry trade between those economies and Japan.

20. In Western Europe, the rush by non-European companies to gain a foot-hold in Europe before the completion of the Single European Market should continue to boost investment. European companies seeking to consolidate their positions in the European market should also contribute to higher investment. In the United States, reduced growth in aggregate demand can be expected, as efforts to bring down the budget and trade deficits are likely to intensify.

21. Exports of manufactures are expected to continue to be the most dynamic component of world trade. Among developing countries, the disparity in export performance observed during the 1980s could become more accentuated, since the main pole of import growth is most likely to be Japan, a country which directs its imports of manufactures from developing countries almost exclusively to South and South East-Asia. The countries in this region are also likely to benefit from higher demand from Western Europe, although in the latter region they could encounter significant competition from trade-replacing foreign direct investment by Japanese and United States corporations.

22. The forecasts for 1989-1990 assume no changes in the trade policies of developed market-economy countries. If protectionist actions were to increase in response to growing import penetration by developing countries in specific sectors in which trade takes place mostly according to traditional comparative advantage, the export growth rates forecast in this report could turn out to be considerably over-optimistic.

23. By comparison with their performance since the early 1980s, Latin American and African exports of manufactures may well rise fairly strongly, but they could continue to encounter serious supply problems. Years of under-investment in Latin American countries could hold down exports of manufactures in the near term. Given the low supply capabilities of the African countries, the absolute value of their increases in exports will be small. Also, exports will continue to be heavily concentrated in very few countries. Some African countries, particularly Mauritius and those of North Africa, may benefit from strong demand for clothing from Western Europe and from their special status in the EEC market.

24. Developing countries may be able to take advantage of the recent sharp increases in demand and prices for non-oil primary commodities, particularly natural rubber, timber, and metals. However, the outlook for tropical beverages - commodities of particular interest to Africa - is poor.

B. The import capacity of developing countries and their absorption of manufactures from developed market economies

25. As already noted, the economies of South and South-East Asia have increased their imports strongly in nominal dollar terms since 1985. While a share of the increase reflects the effects on nominal values of the depreciation of the dollar, the growth in volumes has also been very strong, and these economies have experienced a significant rise in their share of world imports, from 8.8 per cent in 1985 to 10.3 per cent in 1988 (see tables 8 and 9). The combined imports of the four established exporters of manufactures (Hong Kong, Republic of Korea, Singapore and Taiwan Province of China) and the four ASEAN countries which are rapidly increasing their exports of manufactures (Indonesia, Malaysia, Philippines and Thailand) are now roughly of about the same order of magnitude as the imports of the Federal Republic of Germany, which, in turn, is the second largest import market in the world after the United States. The rapid expansion in these import markets has been mainly the result of fast economic growth.

26. By contrast, imports in other developing regions have stagnated or have declined sharply. In Africa and West Asia, nominal imports are still well below their 1980 levels. In Latin America, in spite of significant recovery in imports between 1986 and 1988, in the latter year nominal dollar imports were still only slightly above those recorded in 1980. Moreover, the import recovery has been concentrated in a few countries.

27. The importance of developing countries as import markets for the developed market economies peaked in 1980, when developing countries absorbed about 40 per cent of the exports of the developed market-economy countries (see table 10). While the importance of Africa, Latin America and West Asia as import markets has declined very sharply during the 1980s, that of South and South-East Asia has continued to rise steadily.

28. Even though in the aggregate the export dependence of developed countries on developing-country markets has declined substantially, at the level of individual sectors, or even firms, it is quite high. In the case of certain high-technology and complex goods, mostly in the machinery and equipment sectors, the share of developing countries in the exports of developed market-economy countries varies between 40 and 60 per cent, and the exports of

Table 8

Value of total imports, by region, 1970-1990
(Billions of dollars and percentages)

	Value						Share of total imports		
	1970	1980	1985	1986	1987	1988	1970	1985	1988
WORLD	321.1	2 049.4	1 921.7	2 069.7	2 430.2	2 776.0	100.0	100.0	100.0
Developed market-economy countries	216.1	1 354.3	1 260.6	1 404.3	1 674.0	1 899.7	70.3	67.5	70.3
Europe	144.2	898.7	739.9	873.6	1 071.8	1 208.5	44.9	38.5	43.5
Japan	16.4	135.6	115.4	105.9	125.4	156.2	5.1	6.0	5.6
North America	55.5	320.0	405.3	424.9	476.9	535.0	17.3	21.1	19.3
Developing countries	58.2	459.7	430.5	423.4	490.0	582.2	18.1	22.4	21.0
Africa	11.2	72.5	61.7	58.5	62.9	66.6	3.5	3.2	2.4
Latin America	18.0	114.9	93.3	95.1	105.0	120.0	5.6	4.9	4.3
South and South-East Asia	18.1	155.3	169.6	172.5	220.5	286.4	5.6	8.8	10.3
East Asia four a/	8.7	89.0	103.4	107.8	144.9	193.4	2.7	5.4	7.0
ASEAN four b/	4.9	38.0	35.8	33.1	41.6	54.2	1.5	1.9	2.0
West Asian oil exporting countries c/	4.1	72.2	61.6	54.9	52.4	55.2	1.3	3.2	2.0
Other West Asia d/	6.8	44.8	44.2	42.3	49.1	54.0	2.1	2.3	1.9
Socialist countries of Eastern Europe	34.9	168.4	157.2	174.2	191.1	201.6	10.9	8.2	7.3
China	2.3	20.2	37.2	30.7	32.2	41.2	0.7	1.9	1.5

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Hong Kong, Republic of Korea, Singapore, Taiwan, Province of China.

b/ Indonesia, Malaysia, Philippines, Thailand.

c/ Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, United Arab Emirates.

d/ Includes developing countries of Europe (Cyprus, Malta, Turkey, Yugoslavia).

Table 9

Average annual rates of growth of import volumes, 1970-1990
(Percentages)

	1970-1980	1980-1985	1985-1987	1988	1989 a/	1990 a/
WORLD	4.3	1.7	4.2	8.8	9.1	9.2
Developed market-economy countries	3.6	1.4	5.9	7.9	8.3	7.5
Europe	3.3	-0.1	8.6	6.5	7.3	7.0
Japan	3.5	-1.3	5.2	20.9	15.4	14.5
North America	4.8	6.5	1.0	6.7	8.0	6.3
Other	2.6	-2.7	-2.4	10.9	11.0	12.5
Developing countries	7.2	1.5	0.0	13.2	14.2	15.7
Africa	5.8	0.9	-8.1	0.5	2.0	3.0
Latin America	4.1	-2.3	2.5	10.7	8.0	12.0
South and South-East Asia	8.0	4.1	7.5	22.9	23.0	22.5
East Asia four b/	9.8	5.3	11.3	26.5	27.0	27.5
ASEAN four c/	6.6	0.7	3.1	22.7	16.0	19.0
West Asian oil exporters d/	18.0	0.3	-17.0	-2.2	2.5	6.5
Other West Asia e/	6.0	3.4	-2.7	7.4	8.5	9.5
Socialist countries of Eastern Europe	2.8	2.9	6.6	5.2	4.8	9.0
China	11.9	15.4	-15.4	18.6	12.0	15.0

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Forecasts.
b/ Hong Kong, Republic of Korea, Singapore, Taiwan Province of China.
c/ Indonesia, Malaysia, Philippines, Thailand.
d/ Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, United Arab Emirates.
e/ Includes developing countries of Europe (Cyprus, Malta, Turkey, Yugoslavia).

Table 10

Developed market-economy countries: exports to developing countries, by region, 1980-1988
(Shares in percentages)

Exports from	United States				EEC a/				Japan			
	Billion US$	Share of total exports			Billion US$	Share of total exports			Billion US$	Share of total exports		
Exports to	1988	1980	1986	1988	1987	1980	1986	1987	1988	1980	1986	1988
WORLD	303.4	100	100	100	391.7	100	100	100	264.8	100	100	100
All developing countries	97.6	36.2	32.3	32.2	125.2	43.1	33.2	32.0	88.4	45.6	30.3	33.4
Africa	5.3	2.9	2.1	1.7	32.2	15.0	9.4	8.2	3.7	4.6	1.4	1.4
Latin America	42.1	17.7	14.6	13.9	20.5	7.3	5.2	5.2	8.7	6.6	4.2	3.3
South and South-East Asia	31.2	8.7	9.5	10.3	29.3	5.8	6.9	7.5	52.7	19.8	16.2	19.9
West Asia	7.3	4.3	2.8	2.4	24.6	11.2	7.4	6.3	7.7	9.9	4.1	2.9
Others	11.8	2.6	3.3	3.9	18.6	3.8	4.3	4.8	15.7	4.7	4.4	5.9

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

each of these goods is worth several billion dollars (see table 11). In many cases, rising levels of export dependence are also an indication of the development of new forms of intra-industry specialization in production and trade in North-South relations. 3/

29. The recovery in imports which started around 1986 in the regions that have been most seriously affected by the crisis of the 1980s may gather some strength in 1989 and 1990. However, in the absence of a reactivation of development, significant changes in policies affecting debt, and larger flows of external resources, particularly to Africa, it is difficult to foresee that developing countries will soon recover their role as markets for the exports of the developed market economies. The significant exception is likely to continue to be South and South-East Asia, whose import markets should continue to be quite buoyant. In fact, a significant acceleration in the growth of their import volumes is forecast for 1989-1990.

30. Faster growth in developing countries and debt reduction could have a significant impact on the extent to which developing countries could resume their role as significant import markets. A sustained acceleration of the growth rate of developing countries as a whole of 1 per cent over the growth rates actually recorded in 1987-1988 and above a baseline scenario for 1989-1990 (as indicated by the growth forecasts of table 4) would result in an additional annual increase in imports from developed market economies worth $4 billion. This represents as much as 15 per cent of the average annual increase in the latter countries' exports to developing countries forecast for the period 1986-1990 and estimated at $28 billion (see table 12). Similarly, a sustained 10 per cent reduction in the debt service payments of selected developing regions over the same period would increase their imports by about one quarter over the baseline scenario. 4/ This estimate does not take into account the favourable impact of debt reduction on growth in indebted countries. Therefore, the increase in imports which is likely to occur as a consequence of debt reduction is probably underestimated.

Table 11

Developed market-economy countries: selected products with higher than average export dependence on developing-country markets, 1988

SITC	Description	Exports to developing countries: Value of exports (billion US$)	Exports to developing countries: As a percentage of exports to world
	UNITED STATES		
7293	Thermionic valves, tubes, transistors, etc.	5.6	64.2
0410	Wheat and Meslin, unmilled	2.7	55.0
7184	Construction and mining machinery, n.e.s.	1.9	53.1
5121	Hydrocarbons and their derivatives	1.3	51.8
5812	Prod. of polymerization and copolymerization	2.0	48.8
7249	Telecommunication equipment, n.e.s.	2.6	47.0
7192	Pumps and centrifuges	1.4	44.3
7222	Apparatus for electrical circuits	1.5	41.3
7299	Electrical machinery and apparatus, n.e.s.	1.3	40.8
0440	Maize (corn), unmilled	2.0	38.3
	EEC[a/]		
0222	Milk and cream (in solid form, blocks or powder)	1.2	91.9
7353	Ships and boats, other than warships	1.5	65.7
7249	Telecommunciations equipment, n.e.s.	3.9	61.1
7221	Electric power machinery	1.6	46.1
7171	Textile machinery	2.1	44.4
7293	Thermionic valves, tubes, transistors	1.3	43.5
5417	Medicaments	2.3	43.1
7191	Heating and cooling equipment	1.6	42.7
7192	Pumps and centrifuges	2.4	41.3
7222	Apparatus for electrical circuits	2.0	40.0
6672	Diamonds, not industrial, not set or strung	1.9	34.3
7328	Bodies and parts motor vehicles (ex motorcycles)	3.3	33.1
7198	Machinery and mechanical appliances, n.e.s.	1.9	33.1
	JAPAN		
7353	Ships and boats (other than warships)	3.4	91.0
6743	Plates, etc. of iron and steel uncoated (under 3 mm)	2.0	66.6
8641	Watches, watch movements and cases	1.1	62.9
7171	Textile machinery	1.4	61.7
6535	Fabrics, woven, of synthetic fibres	1.1	59.4
7191	Heating and cooling equipment	1.4	53.9
7199	Parts and accessories of machinery, n.e.s.	1.7	52.6
7221	Electric power machinery	1.8	51.8
7293	Thermiomic valves and tubes, transistors, etc.	6.4	51.7
7222	Apparatus for electic circuits	2.6	51.4
7323	Lorries and trucks, including ambulances, etc.	2.7	30.6

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Excluding intra-EEC trade.

Table 12

Projected average annual gains in exports from developed market-economy countries to developing countries, 1986-1990
(Millions of dollars)

Exports from	Importing regions				
	Africa	Latin America	South and South-East Asia	West Asia and developing Europe a/	All developing countries b/
North America					
Base scenario	52	764	4 711	604	6 788
Additional exports due to:					
1% higher growth	22	411	315	152	973
10% debt-service reduction	80	270	150	--	500
Europe					
Base scenario	312	687	5 264	2,929	10 526
Additional exports due to:					
1% higher growth	264	306	459	735	1 909
10% debt-service reduction	250	110	180	20	560
Japan					
Base scenario	21	377	8 155	437	10 784
Additional exports due to:					
1% higher growth	25	145	661	148	1 173
10% debt-service reduction	10	20	230	10	270
All DMEC's above					
Base scenario	385	1 828	18 130	3,970	28 098
Additional exports due to:					
1% higher growth	311	862	1 435	1,035	4 055
10% debt-service reduction	340	400	560	30	1.330

Source: UNCTAD secretariat.

a/ Developing Europe: Cyprus, Malta, Turkey, Yugoslavia.
b/ Including China.

Chapter II

RECENT DEVELOPMENTS IN STRUCTURAL AND TRADE POLICIES

A. Persisting need for adjustment-oriented policies in developed market-economy countries

1. Developments in agricultural policies

31. Although, in the post-war period, technological progress has undoubtedly had an important impact on agricultural productivity growth in the developed market-economy countries, national agricultural support policies have played the major role in determining supply availabilities in various countries. Whereas national support policies for agriculture, including subsidy programmes, were originally motivated by a desire to retain a minimum domestic agricultural capacity for national food security reasons and to provide assistance to rural areas in fulfilment of social policy objectives, they have in a number of cases led to structural over-capacity in the agricultural sectors of these industrialized economies. Developed countries that were previously major importers have increasingly become self-sufficient in agriculture or have gone beyond the stage of self-sufficiency to become large exporters of a wide range of agricultural products. An important result has been not only to reduce, or shut off, the traditional markets for developing countries but also to displace, often through subsidized exports, developing countries on world markets. Subsidized exports from the developed countries have affected developing country exports, especially to third countries, of meat, sugar, wheat and vegetable oils.

(a) Overall level of support

32. According to OECD secretariat estimates, the cost of agricultural support imposed on taxpayers and consumers in major OECD agricultural trading nations amounted to about $286 billion in 1987. 5/ This figure was higher than in 1986 ($267 billion) and significantly above the average annual cost of some $170 billion recorded during 1983-1985. With regard to specific commodities, the assistance as measured by the producer subsidy equivalent 6/ in the OECD area increased from $159 billion in 1986 to about $169 billion in 1987, both amounts being distinctly higher than in 1984 ($94 billion) and in 1985 ($106 billion). Although both the combined consumer and tax-payer transfers and the amount of the producer subsidy equivalent declined in 1988 relative to 1987, the level of agricultural support continued to be high in historical terms. The total cost for taxpayers and consumers came to approximtely $270 billion, more than in any year prior to 1987, and the producer subsidy equivalent amounted to some $157 billion, higher than in any year prior to 1986. The decline in 1988 was largely the result of increases in world market prices, rather than reflecting changes in support policies. In addition, Governments maintained a variety of measures, ranging from conventional tariffs to a complex array of non-tariff measures, to restrict imports of agricultural products. As a whole, there is as yet little indication of a major shift in the agricultural policies of the developed countries towards greater market orientation.

(b) Efforts at reform

33. The current Uruguay Round of trade negotiations under the auspices of the General Agreement on Trade and Tariffs (GATT) provides the framework in which efforts are currently being made to achieve fundamental reform of agricultural policies in the developed market-economy countries. When Ministers met at Punta del Este in 1986 to start the new Round they agreed, inter alia, that the negotiations in the field of agriculture should "aim to achieve greater liberalization of trade in agriculture and bring all measures affecting import access and export competition under strengthened and more operationally effective GATT rules and disciplines". In the Mid-term Review of the Uruguay Round, participants re-affirmed in April 1989 the long-term objective of establishing a fair and market-oriented agricultural trading system. A reform process should be initiated through the negotiation of commitments on support and protection and through the establishment of strengthened and more operationally effective GATT rules and disciplines. The long-term objective is meant to provide for substantial progressive reductions in agricultural support and protection over an agreed period of time. In relation to short-term measures, participants made a commitment to ensure that current levels of domestic and export support and protection in the agricultural sector will not be exceeded and stated their intention to reduce support and protection levels for 1990. Ministers agreed that special and differential treatment of developing countries would be an integral element of the negotiations. In the area of tropical products, the Mid-term Review agreement has permitted the implementation of a number of market-opening measures by developed market-economy countries. These measures are implemented on a provisional basis for the duration of the Round and can be modified or withdrawn in the light of further developments in the negotiations.

34. Aside from the Mid-Term Review agreement in the Uruguay Round, there were a number of developments in the policies of some of the major developed market-economy countries in 1989. In the European Community, agreement was reached in February 1989 on a limited programme of direct income support, delinked from farm output for the poorest producers. Also in 1989, the EEC lowered the price support for beef producers, raised its quotas on beef for the second consecutive year and granted reduced rates of duty on the tariff quotas for imports of beef, veal and buffalo meat.

35. In the United States, import quotas for sugar were raised in 1988 and 1989 owing to the drought, but the support price for sugar was not reduced. It is noteworthy that the United States accepted a GATT panel report in June 1989 which recommended that it either terminate its sugar quotas or bring them into conformity with the General Agreement. Compliance with this report would have a significant impact on the United States sugar industry. Again in reponse to the 1988 drought and the resulting reduction in stockpiles, annual acreage reductions required to qualify for price-support loans and subsidy payments were eased in the 1989 assistance programme with respect to maize, wheat and rice. While this may have the effect of increasing production and exerting downward pressure on world prices, it will not improve the transmission of world price signals to the domestic market, given the continued level of price support.

36. In Japan, a proposal was made in 1989 to study the country's import market for food with a view to seeking an improved balance between imported and domestically-produced food products. Should such a study be carried out, it will be the first official investigation of distribution channels and price-setting systems for imported food in Japan. In 1989, the Japanese Government continued to pursue its unilateral market-opening measures announced towards the end of 1988.

37. The agricultural sector of the developed countries remains a priority area for policy reforms aimed at reducing the distortions in domestic production and world markets. Where temporary assistance is deemed necessary to provide disaster relief or facilitate adjustment, distortions would be minimized by providing direct income support, rather than by support measures linked to farm output. The adjustment of the agricultural sector would also be facilitated by the development of other economically viable activities, both manufacturing and services, in rural areas. Regional policies, in particular, could promote such development. 7/

2. Policy aspects of structural adjustment in industry

38. In properly functioning markets, shifts in demand and supply conditions are translated into price signals to which the economy responds with adjustments in production and employment structures. As firms shift their production and workers move to new jobs, resources are allocated from less to more productive areas. The economic policies of the developed countries should help resources to move promptly into new, promising activities or to withdraw from declining lines of production. Hence, market signals reflecting trends in competitive positions should play a major role in shaping economic policies. Further scope exists in the developed economies to implement policies which are adjustment-oriented so as to assist markets in fulfilling their resource-allocative function. Policies can, in particular, do more to facilitate the movement of resources from mature production sectors where comparative advantage is shifting in favour of developing countries towards new opportunities in industry and services based, to a greater extent, on innovation, skill, flexibility in production, and entrepreneurial quality. It may be added that the stimulation of competitive pressures through a reduction of trade protection remains indispensable to achieve and maintain a dynamic process of adjustment in all economic sectors. This section examines selected aspects of economic policies with implications for structural adjustment in industry.

(a) Macro-economic policies and structural adjustment in industry

39. The formulation of macro-economic policies needs to take into account possible effects on the process of structural adjustment in the industrial and other economic sectors. Appropriate macro-economic policies can reduce the need for specific industrial support measures. Where macro-economic policies have a favourable impact on the self-financing capacity of industrial firms, such policies promote indirectly investment and innovation activities, which are both essential prerequisites of structural shifts from declining to new promising lines of production.

40. The importance of macro-economic policies in promoting adjustment is increasingly being recognized by Governments in the developed countries. Thus, the policy stance of most of these countries appears to be moderation in wage increases which raises the profitability of fixed capital. While hourly earnings in manufacturing in the OECD area increased at an average rate of about 8 per cent per year in 1976-1985, the annual growth rates recorded in 1986-1988 were below 4 per cent. 8/ Social acceptance of wage moderation, however, remains essential as neither nominal nor real wages are directly under the control of authorities. Furthermore, fundamental tax reforms have been or are being introduced in several developed countries, aimed at raising the incentive for private sector activity. 9/ Corporate and income tax rates have been reduced, although such reductions have in some cases been combined with cuts in tax concessions such as investment tax credits, thus rewarding results rather than efforts as measured by gross investment outlays. The tax reforms are, in particular, expected to have positive effects on the financial position and R & D potentials of small- and medium-scale enterprises. Rates of return in the business sector increased in the developed countries from 19.5 per cent in 1986 to an estimated 20.3 per cent in 1988, compared to an average of 18.4 per cent for the period 1980-1986. 10/

41. Wage moderation and improved corporate profits have apparently stimulated investment which has picked up strongly in the developed economies in the second half of the 1980s. Private (non-residential) fixed capital formation grew at rates of 6 per cent and 11 per cent respectively in 1987 and 1988, whereas growth had been stagnating (and, at times, been negative) in the early 1980s. 11/ Interest costs have fairly direct impacts on the formation and turnover of capital, and high interest rates can affect investment adversely. In 1989, further tightening of monetary policy to contain inflation pressures pushed up short-term interest rates, but long-term rates which are more important in investment decisions remained relatively stable in most countries. Projections do not point to significant changes in 1990. 12/ Low interest rates, on the other hand, can discourage private saving which is another important precondition for structural adjustment. Policy-makers have to find the degree of monetary tightening which curbs inflation and accommodates levels of saving and investment required to maintain the desired pace of economic growth.

42. Increased investment is crucial for more rapid structural adjustment, provided new investment focuses on production areas where the developed countries can expect to have relative competitive strength in line with an efficient international division of labour. Long-run investment trends within OECD are, however, providing cause for concern as business investment is expected to taper off to levels in line with the expansion of GNP.

(b) Labour market policies

43. Rigidities in labour markets have been identified as a major problem area in most developed market-economy countries. Insufficient labour market flexibility impedes a timely adjustment response by industries and firms to structural change.

(i) Lack of occupational and regional mobility

44. The demand for labour in expanding industries does not to a large extent coincide with the qualifications of those released by contracting industries, and those who enter the labour market for the first time do not always have skills which meet new patterns of demand for labour. Labour markets have to respond to new and urgent labour needs created in particular by the speed and scale of technological change. The expected benefits from investment in new technologies are unlikely to be achieved without concomitant investment in the training of the workforce in specific skills as well as in broad-based general education. The resources which went into labour adjustment programmes to assist adults with retraining have, however, been relatively modest in developed market-economy countries. In 1988, public expenditure on labour market training accounted in most developed countries to less than 0.3 per cent of GDP and was as low as 0.1 per cent in some of them. 13/ The highest proportion, spent by some four countries, amounted in 1988 to about 0.5 per cent of GDP. 14/ Moreover, the public resources made available for special youth measures, including training, to promote the transition from school to work, have in most countries been even less than their expenditure on labour market training for adults. 15/

45. While labour market programmes are essential to address the problem of matching people to jobs and, hence, facilitating adjustment by industries to structural change, training and retraining may have little effect if there are few jobs for which workers can be retrained in a particular region, unless new industries, replacing declining sectors, are attracted or workers are willing to move. A number of developed countries have programmes to improve regional mobility, with financial assistance provided to workers who are prepared to leave areas of severe unemployment. 16/ Regional mobility of the workforce appears to be low in the economies of Western Europe, whereas it has been traditionally relatively high in the United States. In Japan, where large firms offer their core labour force strong employment protection, a great degree of regional mobility within the company is demanded of the employees to an extent that is unknown elsewhere. 17/

46. Both occupational and regional labour mobility have proven to be particularly poor in a number of import-competing mature industries because of the high proportion of older workers and workers with relatively few skills and low educational levels. The provision of early retirement benefits is often the only solution to mitigate the adjustment cost of older workers displaced after long job tenures in the same industry. Available data again indicate that public expenditure on early retirement for labour market reasons has generally been low, accounting for significantly less than 1 per cent of GDP in most developed countries in 1988, while few of these countries spent 1 per cent of GDP or more in the same year. 18/ Assistance with labour market training and early retirement might thus be given a more prominent place among active measures to facilitate structural adjustment. Public funding of labour market training has in some countries been stepped up in recent years, but it remains to be seen whether budgetary allocations will generally become more substantive to meet existing needs. 19/ Additional resources for these purposes could be freed by phasing out the subsidization of ailing industrial sectors under adjustment pressure as well as other sectoral assistance where it has proven to be ineffective.

(ii) Inflexibility in wage formation

47. Although important, policy measures to promote labour mobility can only support, but not replace, the operation of market mechanisms. Price signals are set as and when occupational earnings adjust to changes in the demand for and supply of particular skills. Wage differentials which give a more appropriate picture of labour requirements in different industries and regions, reflecting relative scarcity, can provide a powerful incentive for labour mobility. Rigidities in the process of wage formation, however, continue to prevail in many developed market-economy countries. It appears that the countries of the EEC have shown a relatively low flexibility of wages between industrial sectors. Inter-industry differentials in hourly wage costs have, on the other hand, been wide by international comparison in the United States and Japan. 20/ In the 1970s, earnings differentials narrowed further in some of the countries with already small spreads between wages at the beginning of the decade. 21/ Wage rigidities have, in no small part, been the result of trade union policies pursuing greater equality of pay across sectors and regions. The decline in earnings differentials was generally halted in the 1980s, and differentials have in some countries even been widening again, (reflected in particular in rising non-manual/manual earnings ratios) 22/ but it is too early to say whether competitive pressures and demand by industries for labour will in the long run be allowed greater scope in the determination of occupational earnings.

(iii) Over-regulation of the labour market

48. A correction of excess of labour market regulations would, in many developed countries, enhance the capability of industries and firms to adjust to changes in competitive positions and move towards new opportunites. According to a survey undertaken in the EEC, the majority of firms consider the lack of flexibility in recruiting and dismissing workers to be a major constraint on their ability to adapt more adequately to structural change 23/, in striking contrast to the United States where employers may, for the most part, freely dismiss their workers (and close their plants) without government sanction. Excessive labour market regulations often stand in the way of a major improvement in the employment situation. The more difficult it becomes to dismiss workers, the greater will be the reluctance of entrepreneurs to add to their workforce. Where such reluctance entails less new investment in production branches with good growth potential, structural adjustment is further retarded. A large spectrum of the workforce and trade unions have also shown insufficient responsiveness to the need of reorganizing existing work patterns and working time for the effective application of new technologies.

49. Excessive regulation as a means of preserving employment and traditional work patterns can prove costly to the economy. Such an approach will only retain the use of resources in areas of production where the developed countries are losing their comparative advantage, rather than re-deploying resources in new promising sectors. Achieving enhanced flexibility for structural adjustment by easing the regulation of the labour market requires consensus among social partners that greater scope be given to the play of market forces.

(c) Technology policies

(i) Innovation policy in support of high-technology areas

50. Support for innovation efforts which meet industry needs is a key area of policy concern in the field of technology in the developed countries. The promotion of technology-intensive industries and projects in areas such as information technologies, micro-electronics, biotechnology, new materials and space and aircraft has been a prominent feature of government policies in the developed countries for the past one and a half decades. Funds are distributed in a variety of ways, most commonly as project grants, subsidized loans, or in the form of general subsidies such as tax credits. Recent major projects include Sematech in the United States, a joint government/private sector proposal, in part backed by public funds of $100 million, to improve the manufacturing capabilities in semi-conductors. The EEC has a framework programme for the promotion of technological development over the period 1987-1991, funded with ECU 5.4 billion. Of this ECU 2.3 billion is spent on information technology and telecommunications, 1.2 on energy and C.8 on the modernization of industrial sectors. In 1987 the Single European Act gave the EEC increased formal powers in the field of research and technology. Japan has expanded its national R & D programmes in important high-technology areas, including the Project on Basic Technologies for Future Industries which focuses on new materials, biotechnology and advanced electronics. Other developed countries support similar programmes. 24/

51. In a number of larger developed countries (such as Japan, the Federal Republic of Germany, France, the United Kingdom and the United States), R & D expenditure by enterprises accounts for 2 per cent to 2.5 per cent of the domestic product of industry, while such expenditure generally amounts to less in other often smaller developed economies. Government funding of the R & D expenditure can be high. Some developed countries finance between one fifth and one third of the cost of R & D activities of their industries (including research activities supported from defense budgets). In highly research-intensive sectors, government support is even more significant. 25/ A striking exception is Japan where only a small share of about 2 per cent is financed by the Government. The country's industrial sector maintains none the less a relatively high level of R & D expenditure, amounting to some 2 per cent of domestic product of industry. 26/

52. The basic rationale of government engagement in the promotion of technological development is the crucial role of innovation in structural change and its importance for international competitiveness and future economic growth. More specifically, five major arguments are usually given in justification of government involvement. First, the large scale and complexity of many technology-intensive projects can make them unmanageable for a private enterprise. Secondly, capital markets may be too risk-averse to channel adequate funds into high-cost research projects. Thirdly, concern is frequently expressed about potential dependence on foreign suppliers of key technologies as their ready international availability can become uncertain. Fourthly, the benefits of privately-funded research may not be fully captured by the firms which provide the funds, and less would, therefore, be privately spent on research in the absence of assistance than is desirable from the

perspective of the economy as a whole. Finally, external economies, potential technological "spill-over" benefiting wider segments of the industrial base and efficiency gains from learning-by-doing are important rationals for government promotion of technology-intensive industries and projects.

53. In practice, very little is known about the effectiveness of subsidy policies in support of research carried out by industrial enterprises. Firms may sometimes be assisted with research projects which they would have conducted even without the subsidy. Moreover, large-scale and complex projects can often become manageable with less public assistance as joint ventures between several corporations, and capital markets tend to react more favourably to the spread of financial risks which such co-operation involves. The formation of alliances between firms for research projects associated with high costs and risks has, in fact, increased sharply in the 1980s. More recently, some Governments have also placed greater emphasis on collaborative research in funding innovation activities. 27/ These Governments are increasingly providing assistance to projects involving more than one firm, often from more than one country, thus giving enhanced attention to a wider participation of private sector finance and international co-operation in new technologies. The growing European dimension of research projects of the member States of the EEC is the most prominent example of co-operative ventures across national borders. 28/ The fact that the research programmes of many developed countries have broadly the same coverage of high-technology related areas reflects a convergence of views on the future commercial promise of these areas. The promotion of research programmes in technology-intensive sectors is expected to support a shift in the industrial structure towards high-productivity industries and a changeover to new products. Concern has, on the other hand, been expressed that the concentration of government-aided research efforts on identical sectors in a greater number of countries will subsequently, when innovations are commercially exploited, lead to the building of worldwide over-capacity in the promoted areas. Available evidence suggests that such risk has remained small with few exceptions. An analysis of the patterns of R & D activities and technology-intensive exports of major developed countries in the 1980s confirms the relatively low degree of specialization between these countries in their research programmes, but provides, on the other hand, evidence of a comparatively high and increasing intra-industry specialization in the composition of trade in technology-intensive products among developed countries. 29/ Hence, "broad-front" research strategies seem to be followed by "niche" strategies at the stage of commercialization of innovations reflecting a large potential for an intra-industry specialization in production.

54. The risk aversion of established financial markets remains a major obstacle to the formation of technology-oriented small and medium-scale firms, although innovativeness and ability to adapt to changing economic conditions have proved to be valuable assets in the case of many of these enterprises. In the United States, venture capital firms have played an important role in providing funds to new unproven enterprises, in particular in high-technology areas such as semi-conductors, personal computers, biotechnology, computer-aided design and computer-aided manufacturing. These venture capital firms exchange capital for an equity or ownership stake in the companies they finance, and they reduce investment risks through careful evaluation of business proposals and an active involvement in helping to manage the new firms, thus transcending the role of disinterested financiers. Venture capital is provided at the early stage of experimentation with new technology

when its application and market potential have not as yet fully emerged and finance is most important. There is indication that venture capital-financed innovation has significantly accelerated the process of technological change in the United States. 30/ Since the early 1980s, policy-makers in other developed countries have tried to encourage venture capital, but no significant progress has been made in most of these economies in this regard. 31/ In Japan, venture capital has played only a marginal role and does not appear to be growing. 32/

(ii) Innovation policy in support of traditional production sectors

55. The role which new technologies might play in strengthening the competitiveness of mature industries (i.e. textiles, clothing, glass industry, printing and publishing, paper industry, watchmaking, etc.) has also been receiving increasing attention in the developed countries, and Governments have been promoting the development of new, mainly microelectronic-based technologies for traditional production sectors. Programmes are carried out with public support to develop new products, improve existing ones and, above all, to generate process innovations which reduce production cost, especially the cost of labour. The substitution of capital for labour has become a major characteristic of technological progress in mature industries and many developing countries have become concerned that they might lose the comparative advantage which they have in hitherto labour-intensive lines of production.

56. The progress made in the utilization of new production technologies varies among sectors. In the clothing industry, the sewing operation and the handling of the fabric pieces are not as yet accessible to a high degree of automation, and there is, at present, little prospect for a decisive breakthrough in clothing technology, but the Governments of several developed countries continue to support major projects aimed at developing a fully computer-integrated manufacturing system. 33/ Technological progress in spinning and weaving operations, on the other hand, has significantly improved the competitive situation of the textile industry in the developed countries, making the industry a highly capital intensive activity. Textile technology tends to diffuse rapidly throughout the world and has spread quickly to producers in developing countries, some of which have also achieved a high level of modernization of their production equipment. They have generally retained their competitive edge in standardized mass products, but the high capital intensity of production (and the associated cost of power consumption) have, none the less, narrowed their labour cost advantage in the textile sector.

57. Policies of developed countries intended to promote technological innovation in traditional industries should be oriented, to a greater extent, towards enhancing intra-industry specialization in production and trade with developing countries, rather than trying to regain competitiveness in production lines where the factor endowment of developing countries gives them a natural comparative advantage. Hence, policies should pay particular attention to promoting innovations which move the structure of production "up-market" into areas of more sophisticated products.

(iii) Technology diffusion

58. The competitiveness of firms and industries depends on putting technology to work. Sector- and project-specific aid to industry emphasizing the development of technology needs to be complemented to a greater extent by horizontal and trans-sectoral approaches aimed at promoting dissemination and application of technical progress throughout industry as a whole, taking care not to neglect smaller firms. Technology policies, like other economic policies, have to promote shifts in the direction of new areas of comparative advantage on a broad base. Programmes to disseminate technology and promote awareness, demonstration and learning are crucial as the availability of new technology by no means ensures its quick adoption and efficient utilization. The introduction of advanced manufacturing technology 34/ often requires long periods of learning-by-doing on the adopters' side and substantial organizational alterations in production and management. Hence, the realization of improvements in costs and competitiveness can take time and diseconomies may occur initially.

59. In a number of developed countries, government policies in the technology area are gradually placing greater emphasis on the diffusion of technology, including the promotion of closer contact between enterprises and research institutes. 35/ In various countries, the role of public or semi-public institutions supplying technological information and advice to small- and medium-sized enterprises has also been growing in recent years. 36/ Furthermore, Governments have become conscious of the potential for enhanced competitiveness and growth associated with the rapid evolution of new manufacturing technologies, based on micro-electronic applications which permit greater flexibility in production processes and no longer require long runs to be produced to obtain important reductions in unit cost. Some Governments have been promoting the diffusion of such manufacturing technologies through fiscal and financial incentives. 37/ Here again, government policies should be conducive to shifts in production patterns which lead to greater intra-industry specialization in trade with the developing countries.

60. In many developed countries, a shortage of technical personnel is a serious barrier to a more rapid adoption and an efficient utilization of new product and process technologies. Addressing the problem requires closer integration of technology and labour market policies and increased investment in human capital. In some countries, insulation from competitive forces through high protection has been an important disincentive to the adoption of new technologies.

(d) Regional policies

61. Attempts to encourage growth within regions adversely affected by structural change focus increasingly on attracting more skill- and technology-intensive industries, besides the development of new service activities. New investment is the main target for regional aid in most developed countries, rather than the subsidization of employment. Various packages of tax incentives, grants and subsidized loans are employed, in addition to public expenditure on industry-related infrastructure improvements. In some countries, regional and R & D assistance can be combined to support in structurally weak regions the creation of high-quality jobs in companies with innovative capability. Assistance is mainly directed

towards the development of a diversified industrial structure made up of small and medium-sized companies. Most developed countries have embarked on the establishment of science parks and high-technology zones which bring together industrial firms and research and academic institutions on one site. The objective is to stimulate regional development by shifting the industrial pattern away from mature sectors towards new knowledge-based industries. Japan has made this concept a major feature of its regional policy, involving the development of numerous large-scale "technopolis" sites with government aid. 38/

62. Not all the efforts in developed countries to restructure regional economies through promoting growth poles based on investment and new technologies have come up to expectations. The problems associated with developing more skill- and technology-intensive industries in areas under adjustment pressure are rooted in general deficiencies of these regions which relate mainly to an insufficient local structure of industrial inputs and services and the relative lack of qualified manpower.

63. Regional assistance has become a major component of structural policy of the EEC, with grants and loans at favourable rates being provided from a number of sources. 39/ Available evidence indicates that regional inequalities in the EEC have not as yet been substantially reduced, and even appear to have further grown in the case of some areas. 40/ In some European countries, the ranking of regions by unemployment rate has changed little since the 1960s, whereas substantial changes in the performance of particular regions have occurred in the United States. 41/ The funds made available by the EEC for less developed regions have been considerably increased in recent years, with a doubling of resources in 1987. 42/

64. The southern enlargement of the EEC to comprise Greece, Spain and Portugal is bound to increase the size of the regional problem of the Community, aggravating the centre-periphery divide. To mitigate disparities, significant regional assistance for the financing of productive investment and infrastructure will become available from the EEC, enhancing the financial support and other incentives provided at national levels. 43/ Regional aid is expected to stimulate private investment in less developed areas, and free access to the whole of the EEC market constitutes an additional powerful attraction for such investment. The regional incentive policies could, on the other hand, have adverse implications for the export prospects of the developing countries. Many less developed regions in the Community have a relative abundance of unskilled labour similar to the situation in the majority of the developing economies. Regional subsidies by the EEC, in combination with assistance at national levels, could consequently induce a growing flow of investment in mature industries to the southern periphery of Europe. Hence, regional assistance could further distort competition in production sectors where the developing economies have a comparative advantage.

65. In addition, such assi tance would negatively affect foreign direct investment in the developing countries to the extent that new foreign investment is directed to less developed areas in the EEC to take advantage of regional subsidies, while it would otherwise have been made in a developing economy. In particular, labour-intensive segments of the production process,

which in the past have increasingly been relocated to developing countries, might now also be shifted to the southern periphery of the EEC from where processed parts can be re-exported to all member countries of the Community unimpeded by protectionist barriers. 44/

B. In search of new approaches towards trade policy in developing countries: experiences and options

66. Trade and industrialization policies have been at the centre of the debates on development strategy and policy during the entire post-war era. Developing countries have gained rich experience in this area, as a wide variety of approaches have been followed. In the early post-war era and up to the 1960s, many countries, particularly those which had a potential market for manufactures, favoured policies of import substitution and of delinking domestic prices from those prevailing in the international economy, so as to encourage the domestic production of a broad range of previously imported light consumer goods. As the easy stages of import substitution were completed, the extension of the process to more complex stages of manufacturing (intermediate goods, consumer durables and capital goods) faced increasing constraints from the limited size of the domestic market. In addition, in many countries, costs in the manufacturing sector, particularly for the more complex products, remained considerably higher than international prices and proved to be more difficult to reduce over time than envisaged by the proponents of the strategy. In many cases, the structure of incentives that emerged from policies to protect the domestic market from foreign competition did not have a long-term development rationale but was the result of the various pressures for protection exerted by powerful national and transnational interests groups.

67. It should not be forgotten, however, that policies of import substitution were instrumental in initiating processes of industrialization in many countries, or strengthening them in others where industrialization had gotten underway in a more spontaneous manner. Indeed, many industries set up during the period of import substitution became, later, the basis for export expansion. The earlier industrialization process also contributed to the formation of human skills which proved to be essential to more recent export drives. This is particularly true of countries such as Brazil or Mexico, and even of such successful exporters as the Republic of Korea and Taiwan Province of China. In the case of the latter two exporters, the strategy of outward orientation, begun in the mid-1960s, owed its initial success in no small measure to the supply capabilities and industrial skills created during an earlier phase of import substitution. Likewise, in Brazil, the rapid expansion of manufactured exports, particularly since the early 1970s, was based on already existing industries developed in an earlier period. In both Brazil and Mexico, the export of increasingly sophisticated goods, such as automobiles and automobile parts and components, which have made an important contribution to export earnings during the 1980s, was possible only because such industries had already been operating in those countries for a considerable period of time and had already attained international competitiveness.

68. Changes in policy orientation among developing countries and territories began towards the mid-1960s, when the Republic of Korea, Singapore and Taiwan Province of China switched to a strategy of export promotion as the cornerstone of industrialization. 45/ While this policy shift has sometimes

been portrayed as being in the direction of laissez-faire, it is now agreed that it involved considerable inter-industry selectivity in the application of trade and/or industrial policies 46/, with particular attention being paid to exports. By contrast, in the mid-1970s, Chile drastically liberalized its trade policies by practically eliminating non-tariff import measures and by establishing a common tariff. Export incentives did not play an important role in the new policies, and the economy was expected to re-orient itself spontaneously to export markets along lines of comparative advantage as a result of the removal of protection.

69. The experiences of these countries are of broad policy interest for other developing countries, since the policies they adopted have been maintained for a long enough period to permit some conclusions with regard to the relationship between policy and performance. In particular, the South-East Asian economies have sustained high rates of growth of industrial output and exports for a quarter of a century. In the Republic of Korea, per capita incomes have more than quadrupled since 1965. The case of the Republic of Korea has been chronicled in many studies and is now well understood. 47/ Simplifying somewhat, it can be said that in the Republic of Korea export incentives of various kinds (tariff drawbacks, tax rebates and, particularly, credit at preferential interest rates) roughly equalled incentives to produce for the domestic market. Activities targeted by the authorities for development received favoured treatment for a specific period of time, after which they were expected to become internationally competitive. The exchange rate has been kept steady in real effective terms and highly favourable to the production of tradeables. As the economy grew in sophistication and complexity, in the 1980s it has been possible for the authorities to reduce gradually the degree of trade intervention, although certain activities continue to be supported. The trade policies followed by Taiwan Province of China have been broadly similar to those of the Republic of Korea, although their economic policies differed in some significant respects. 48/

70. As already noted, trade liberalization in Chile dates back to the mid-1970s. However, different exchange rate régimes have been in force since the inception of the policy of openness. In the period 1978-1982, the domestic currency became increasingly overvalued as the authorities attempted to use exchange rate policy to slow down the rate of inflation; following a sharp devaluation in 1982, the peso has been progressively devalued in real terms since then. Therefore, trade trends have been affected not only by the trade régime, but also by the changes in exchange rate régime. There undoubtedly has been an important diversification of exports since the mid-1970s, and growth in the exports of non-traditional products has accelerated remarkably since 1982. New exports include fresh fruit, wood and wood products, and fishery products, all based on natural resources in which the country has a comparative advantage. However, manufactured output and exports have performed considerably less well, as per capita income is not significantly higher now than in 1970. The policy of rapidly opening the economy to international competition, in conjunction with the increasing overvaluation of the peso of the late 1970s and early 1980s, resulted in sharp disinvestment in the manufacturing sector. In addition, policies have failed to raise investment rates; in fact, in the 1980s, the ratio of gross domestic investment to GDP has declined significantly. 49/ During the 1980s, an increasing number of developing countries have come to realize that considerations of international competitiveness are crucial to long-term sustained growth. This awareness has been translated into important changes

in trade policies. 50/ The approaches of different countries have varied quite considerably, as could be expected of countries which have very different factor endowments, are at different stages in the development of their supply capabilities, and are of very different economic size. This variety of experiences contains important lessons for countries contemplating changes in their trade and industrialization policies.

71. A number of countries attempted to follow policies similar to those adopted earlier by Chile and to achieve broad neutrality of incentives for domestic producers in different industries and as between producing for the domestic or international market. The policies pursued included the lowering of tariffs, establishing either a common tariff or a tariff structure with small dispersion of rates as between different goods, and the elimination or drastic reduction of quantitative restrictions. These countries include Bolivia, Côte d'Ivoire, Jamaica, Mexico and Uruguay. 51/ In most of these countries, the policy reforms were accompanied by sharp depreciations of the exchange rate.

72. A second group of countries - including Brazil, Costa Rica, Indonesia, Malaysia, Morocco, Thailand and Turkey - have liberalized their import controls and rationalized their tariffs while maintaining selectivity in their incentive structures. Of course, the dispersion of incentives as between different sectors has varied from country to country, as has the extent to which policies have encouraged production for the domestic and foreign markets within each sector. However, most of the countries in this group have shared an awareness of the crucial importance of international competitiveness and an increasing export orientation in their development strategies. Selectivity has been relatively moderate in countries such as Costa Rica, Malaysia, Morocco and Thailand. In other countries, selectivity of incentives has been more pronounced. This is the case of Brazil, Indonesia and Turkey.

73. Most of the countries in this group have maintained fairly stable incentives to exporters. These policies have included profitable and stable exchange rates and a number of fiscal and financial incentives. 52/ In these countries, the authorities have assured exporters access to imported inputs at international prices through tariff drawbacks. Income tax rebates have often been used to compensate exporters for higher-cost domestic inputs or for the greater profitability of producing for the domestic market which results from tariffs or other import restrictions.

74. A third group of countries have broadly maintained policies which favour import-substituting industrialization, although some of them have made cautious moves towards correcting disincentives against exporting and rationalizing their import control measures. In these countries - which include Argentina, India, Peru, Venezuela, and Yugoslavia - levels of protection are still relatively high. 53/

75. Growth rates of output and non-traditional exports have tended to vary quite significantly between countries (see table 13), and it is not easy to make generalizations as to the relationship between policy régimes and economic performance. Undoubtedly, the optimal policy mix will vary from country to country, depending on market size and resource endowments. Thus, for example, large countries have greater scope for efficient import-substituting industrialization than smaller countries.

Table 13

Indicators of export and growth performance in selected developing countries, 1970-1987
(Percentage)

	Average annual real rate of growth of GDP		Average annual rate of growth of real manufacturing value added		Average annual rate of growth of real manufactured exports		Share of manufactures in exports	
	1970-1987	1980-1987	1970-1987	1980-1987	1970-1987	1980-1987	1970	1987
Argentina	1.2	-0.7	0.5	-1.2	3.1	-4.6	13.9	32.2
Bolivia	1.7	-1.6	0.5	-5.8	-4.9	-11.4	5.1	0.5 a/
Brazil	6.2	2.8	6.0	1.2	15.4	4.5	13.2	44.1 a/
Chile	2.0	1.3	1.0	0.8	11.3	2.3	19.4	12.3 b/
Colombia	4.5	3.2	4.5	3.0	9.7	-	8.0	19.4
Costa Rica	3.8	1.3	8.0	1.0	7.9	2.3	18.7	36.0
Ghana	0.7	1.1	-1.1	-0.3	-0.4	0.7	0.5	2.4
India	3.9	4.9	5.7	8.2	4.9	2.9	52.1	58.3 a/
Indonesia	6.1	3.8	11.3	7.4	31.8	39.7	1.2	19.8 b/
Côte d'Ivoire	4.1	1.4	4.5	-2.3	7.7	-2.4	6.0	9.3 a/
Jamaica	-0.2	1.0	-0.4	2.1	-0.6	-6.7	46.3	66.1 b/
Republic of Korea	8.5	8.7	13.6	10.8	22.3	15.3	76.5	92.8
Malaysia	6.5	4.6	9.5	6.6	17.9	16.4	8.2	40.1
Mauritius	6.0	6.2	8.2	11.1	27.8	13.1	1.8	41.8 b/
Mexico	4.2	1.0	4.3	0.4	14.1	19.2	35.1	35.6
Morocco	4.0	2.8	3.9	1.6	15.8	14.1	9.7	48.9
Nigeria	2.1	-2.2	8.0	0.0	4.7	-2.0	0.8	- b/
Pakistan	5.6	6.8	7.0	9.1	4.4	11.5	57.2	72.0
Peru	3.1	2.1	3.0	2.5	19.4	-4.6	1.4	22.6 b/
Philippines	3.8	0.4	4.0	-0.0	17.9	4.2	7.5	33.8 b/
Senegal	2.5	3.5	3.4	5.1	1.0	4.1	18.8	14.9 b/
Singapore	7.7	5.9	8.3	4.6	16.6	6.4	27.5	66.8
Thailand	6.2	5.6	8.4	6.0	19.3	13.5	5.3	52.1
Turkey	5.3	5.5	6.4	8.3	26.0	35.9	8.9	66.8
Uruguay	1.5	-0.6	1.4	-1.1	5.1	0.5	20.4	44.1
Venezuela	1.8	0.5	4.1	2.7	14.0	15.6	1.4	8.5 b/
Yugoslavia	3.8	0.9	5.3	1.5	5.9	1.3	66.9	83.1

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office and World Bank, World Tables

a/ 1986.

b/ 1985.

76. However, several lessons can be drawn from the experiences of the post war period. In the first place, it would seem that countries which balance incentives to produce for the domestic market with encouragements to export generally perform significantly better in terms of output growth than those which emphasize only import substitution and protection of the domestic market. The high rates of economic growth recorded by the Republic of Korea and Taiwan Province of China are evidence in favour of this hypothesis. More recent experimentation with trade policies in the 1980s also confirm it. With few exceptions, the countries included above in the second group - whose policies were of encouragement to selective industries both for the domestic and international markets - by and large, have grown at a faster pace and have tended to sustain higher rates of investment than countries which have continued to rely exclusively on import-substituting industrialization. Secondly, the use of a variety of policy instruments outside what is normally considered trade policy (e.g., credit policies, investment in economic and social infrastructure, fiscal policy, and policies towards foreign investors) has proved to be essential to the long-term competitiveness of the industrial sectors of countries that have become exporters of manufactures. All countries whose manufactured output and exports have grown rapidly over the long term have made active use of a wide variety of such policies.

77. Thirdly, it would appear that selectivity in the structuring of incentives is more conducive to high rates of investment and output growth than drastic programmes of trade liberalization. As already noted, the only country which has consistently pursued a policy of neutrality of incentives for a period long enough to assess its results has been Chile. And performance indicators in this country give mixed signals. On the one hand, exports have become more diversified; on the other, there has been little progress as regards manufactured exports and output, and investment rates have declined. While it is still early to pass judgement on most of the liberalizing experiences of the 1980s, most of the countries adopting policies of rapidly and drastically opening their economies have not recorded strong growth of output, exports and investment. Moreover, in the absence of policies to improve supply capabilities, a sustained process of industrialization and export diversification does not appear to be in sight.

78. Finally, changes in domestic policies alone are unlikely to lead to faster growth. Significant increases in investment rates are indispensable for growth and structural change. In most countries, these increases cannot be brought about without an easing of foreign exchange constraints and larger flows of foreign resources. Moreover, for developing countries as a whole, the success of more export-oriented growth strategies depends on a stable, predictable and favourable trading environment.

Chapter III

STRUCTURAL ADJUSTMENT TRENDS AND POLICIES IN INDUSTRIAL SECTORS OF PARTICULAR EXPORT INTEREST TO DEVELOPING COUNTRIES

A. Main conclusions

79. An attempt is here made to focus on the major issues of structural adjustment in the world economy as they affect developing countries by examining individual sectors of particular export interest to those countries. Four industries have been chosen for analysis: iron and steel, automobiles and components, consumer electronics, and textiles and clothing. The four industries surveyed were subject to major shifts in production and trade during the 1980s (see table 14). The bulk of these shifts took place among the developed countries. However, developing countries achieved significant gains in market shares in major developed countries, and such exports contributed to rising export earnings and production. These export increases were highly concentrated in a handful of relatively industrialized countries. In some subsectors, there has been a widening of the number of exporters (for example, in automobile parts and components, standard consumer electronics and, above all, clothing).

80. In most developed countries these industries confronted major adjustment problems during the 1980s. They were caused mainly by excess capacity, outdated technologies and delayed adjustment efforts vis-à-vis other developed country competitors. With the exception of clothing, in these industries, the contribution of developing countries to these adjustment pressures was secondary, as increases in their market penetration remained modest (see table 15). Furthermore, their export success was achieved largely in standardized, labour-intensive products in the lower price brackets, while most developed-country producers were moving towards up-market products. In clothing, developing countries were able to attain high rates of market penetration in developed countries. Clothing contributed a large portion of the export success in manufactures of several developing countries. However, export growth was increasingly limited by protectionism in most developed countries and was achieved in spite of trade restrictions.

81. Low labour costs were an important factor accounting for increased international competitiveness in all four industries. A number of other factors were equally important for export success. These included the financial strength of certain enterprises, the relatively large scale of their operations, the recent vintage of their plant and equipment, or their long-standing industrial experience. In a few cases, dynamic and profitable domestic markets assured a solid base for export expansion. It should be remembered, however, that developing country exporters still account for a small share of world markets. Exports of manufactures from developing countries continue to be hampered by low productivity of factors of productions, lack of capital, and inadequate infrastructure.

82. Governments in the developed countries reacted to increased adjustment pressures in various ways. Government action in the United States focused on granting protection to ailing industries against major competitors, while it relied on the sectors involved to introduce rationalization measures. Imports from developing countries were increasingly subject to voluntary export restraints (VERs) and anti-dumping and countervailing duty action,

Table 14

Trends in production and trade in selected sectors, 1980-1988

(Percentages)

	Average annual rate of growth of output 1980-1988	Exports a/			Imports a/		
		Average annual growth rate 1980-1987	Shares		Average annual growth rate 1980-1987	Shares	
			1980	1987		1980	1987
Manufacturing industries							
World	3	7	100	100	7	100	100
Developed countries	3	6	83	78	8	64	71
Developing countries	5	14	9	15	2	26	20
Eastern Europe and China	4	6	8	7	6	9	8
Iron and steel							
World	1	1	100	100	1	100	100
Developed countries	-1	0	85	76	2	56	60
Developing countries	7	11	6	11	-2	29	22
Eastern Europe and China	2	6	9	13	3	15	17
Road motor vehicles							
World	2	8	100	100	8	100	100
Developed countries	2	8	91	92	11	74	88
Developing countries	5	21	2	4	-3	24	11
Eastern Europe and China	2	-8	2	1	-6	2	1
Consumer electronics							
World	..	12	100	100	12	100	100
Developed countries	..	10	84	79	12	78	78
Developing countries	..	16	14	19	12	20	20
Eastern Europe and China	..	12	1	1	23	1	2
Textiles							
World	1	6	100	100	6	100	100
Developed countries	0	4	70	60	6	64	63
Developing countries	3	11	22	30	6	29	28
Eastern Europe and China	2	10	8	10	9	7	9
Clothing							
World	1	10	100	100	10	100	100
Developed countries	-1	7	51	42	11	79	85
Developing countries	4	15	37	48	5	13	9
Eastern Europe and China	2	7	12	10	5	8	6

Source: UNCTAD secretariat, based on data of the United Nations Statistical Office.

a/ Underlying data in current dollars.

Table 15

Developed market-economy countries: import penetration ratios from developing countries, in selected manufacturing sectors, 1975-1988 a/

(Percentages)

Manufacturing Sector	Year	United States	Canada	Japan	France	Germany Fed.Rep.	Italy	United Kingdom
Total manufactures (3) b/	1975	2.0	1.2	1.8	1.5	2.5	2.2	2.5
	1980	3.0	1.7	2.2	2.6	3.7	3.9	2.8
	1986	4.3	2.8	1.5	2.6	4.2	3.3	3.7
	1987	5.1	3.0	2.2	3.6	5.7	4.5	4.7
	1988	5.6	...	3.0	...	...	...	
Textiles (321)	1975	1.6	2.6	3.6	1.8	4.9	3.7	3.8
	1980	2.5	3.6	4.5	3.6	8.7	5.5	5.3
	1986	4.3	7.3	3.7	4.4	8.9	5.1	7.7
	1987	4.8	8.9	5.0	5.7	11.2	6.3	11.2
	1988	4.7	...	6.5	...	...	...	..
Clothing (322)	1975	7.8	9.3	6.2	3.4	18.6	1.8	13.8
	1980	15.2	12.4	9.8	8.7	29.8	4.6	19.3
	1986	26.5	21.1	11.8	14.8	44.8	6.3	26.4
	1987	29.4	22.5	18.0	20.5	52.9	9.4	31.9
	1988	30.7	...	23.1	...	...	...	..
Iron and steel (371)	1975	0.7	0.6	0.3	1.6	0.4	0.9	0.2
	1980	1.3	0.9	0.9	1.3	0.9	1.4	0.4
	1986	3.2	2.2	1.3	0.8	1.6	1.3	0.5
	1987	3.5	2.6	1.9	0.6	1.6	1.7	0.5
	1988	4.2	...	2.9	...	...	...	...
Electrical machinery and apparatus (383)	1975	3.6	1.1	0.9	0.7	1.6	0.8	1.2
	1980	6.0	2.5	1.0	1.8	3.5	2.0	2.6
	1986	8.2	5.0	0.7	3.2	5.1	2.3	5.4
	1987	9.1	5.5	1.1	4.5	7.1	3.4	7.0
	1988	9.8	...	1.5	...	...	...	...
Radio, TV, telecom and apparatus (3832)	1975	5.6	2.4	1.2	1.2	2.6	1.4	2.2
	1980	8.0	5.1	1.3	2.8	6.2	4.2	3.9
	1986	8.7	8.5	0.7	4.5	7.7	5.4	7.7
	1987	9.5	8.6	1.3	7.1	11.4	8.1	10.3
	1988	9.7	..	2.0	...	...	...	...
Road motor vehicles and parts (3843)	1975	0.2	0.2	0.0	0.2	0.5	0.1	0.2
	1980	0.4	0.2	0.1	0.4	0.5	1.1	0.3
	1986	1.3	2.3	0.1	0.4	0.7	1.4	0.7
	1987	2.4	2.1	0.1	0.6	0.9	3.1	0.8
	1988	3.3	..	0.1	...	...	...	...

Source: UNCTAD secretariat, based on data of the OECD.

a/ Imports as a share of apparent consumption. Ratios for 1987 and 1988 are estimations.

b/ Numbers in parenthesis refer to ISIC categories.

particularly in steel, textiles and clothing. Western European countries resorted to a variety of measures to support their enterprises, including protectionism, government subsidies, control of domestic production, rationalization and modernization programmes and the facilitation of enterprise co-operation. Japan relied mostly on close co-operation between Government and the enterprise sector for rationalization programmes. In more recent years, the emphasis shifted, particularly in Western Europe, from measures in favour of declining industries towards more active support for R & D programmes and investment in new industries and products with future growth potential.

83. In all developed countries, enterprises in these sectors made substantial adjustment efforts. Major strategies in these four industries involved heavy investment in rationalization and automatization, a new focus on R & D, and the increased internationalization of production. Of course, strategies were quite different in different sectors. For example, the degree to which firms internationalized their production through foreign investment or joint ventures was quite significant in consumer electronics but minor in steel. Some corporate adjustment measures benefited developing countries: sub-contracting in developing countries and the relocation of labour-intensive production reduced costs and improved the competitiveness of enterprises in the developed countries. At the same time, these measures enlarged the production base and exports of developing countries in products such as clothing, electronic components and automotive parts.

84. Developing country industries were also subjected to world-wide adjustment pressures stemming from technological change and from escalating protectionism in major markets. Protectionism was unable to prevent a significant decrease in employment in the four industries in the developed countries. As regards the effects on exports of developing countries, the effectiveness of greater protectionism varied considerably from one industry to another. For a variety of reasons, protectionism was considerably more effective in steel than in textiles and clothing. However, in the absence of protectionism, the clothing exports of developing countries are likely to have grown at a considerably faster pace.

85. It is clear that the policies of developed countries have not emphasized to a sufficient degree structural adjustment and the movement of resources into promising new areas and out of declining industries in which comparative advantage has shifted towards developing countries. Rather, costly protectionist policies have delayed - but have not prevented - adjustment and have raised costs to consumers and to user industries. In the future, policies need to emphasize lowered protectionism and greater support for the relocation of production to low-cost developing countries.

B. Iron and steel

1. Major shifts in production and trade

86. In this industry, a pronounced recession during the first half of the 1980s caused strong competitive pressures to cumulate and gave rise to intense adjustment processes worldwide. Although steel production increased again in more recent years, world production of steel practically stagnated over the 1980s, with a mere average annual increase of less than 1 per cent between 1980 and 1988. A decrease in production in the developed countries

was compensated by rapid growth in developing countries and China (by 6-7 per cent annually on average). As a result, the share of developed countries in world steel production dropped from 56 to 49 per cent, in favour of developing countries and China, whose share rose from 15 to 23 per cent. Most of this additional production catered to domestic demand.

87. Although world production, consumption and exports of steel are still dominated by the developed countries, there has none the less been a shift in comparative advantage away from developed countries and in favour of developing countries. Developing countries achieved significant export growth and raised their share in world exports from 7 to 11 per cent. This success was highly concentrated: the Republic of Korea and Brazil accounted for half of the group's exports. In addition, more recently new producers have emerged and have achieved substantial export growth. These include Taiwan Province of China, Mexico, Venezuela, Yugoslavia, Turkey, Malaysia and Indonesia. Other smaller exporters include Argentina, India, Philippines, Qatar, Saudi Arabia, Algeria and Zimbabwe. The steel exports of developing countries have shifted toward higher degrees of processing, and finished products now account for about 60 per cent of their total exports. In spite of rapid growth of domestic production and exports, developing countries remain substantial net importers.

2. Major factors underlying these shifts

88. In spite of their rapid increase, steel exports from developing countries did not figure among the major causes of the adjustment pressures in developed countries. These are related mostly to the long-term competitive decline of the industry in the United States and Western Europe. The share of developing countries in major markets, as measured by the import penetration ratio, remains marginal, ranging from 0.4 per cent in the United States to 4.2 per cent in the United Kingdom (see table 15).

89. A major common source of comparative advantage of developing countries lies in their low labour costs as compared to developed countries. Other important factors contributing to the competitiveness of the steel industry in certain countries have been the rapid growth of domestic user industries; the recent vintage of some plants, which incorporate the most recent technology; economies from large-scale production in a few countries (such as Brazil and the Republic of Korea); and less stringent environmental regulations and cost.

3. Adjustment policies

90. The response to lower demand and competitive decline in developed countries has been a mixture of protectionism and structural adjustment. The pace and the timing of decline have differed among developed countries, and so have the measures employed to restructure the industry. Competitive decline started much earlier in the United States (in the late 1950s) than in the EEC (1970s) and Japan (early 1980s). Furthermore, the role of the State in response to the crisis in the steel industry has been far more prominent in the EEC than in the United States and Japan.

91. In reaction to the long-lasting and intense recession of the steel industry in the United States and Western Europe, corporate strategies in the steel industry have undergone certain changes. Their main thrusts have been

heavy investment on the rationalization of production, worker lay-offs and plant closures; specialization in products with growth prospects; and diversification into other industries.

92. The response of Governments has varied considerably from country to country. The United States has long resorted to "voluntary export restraints" (VERs) to protect the domestic steel industry; these measures were extended in mid-1989 for a further two-and-a-half-years. Such arrangements set export quotas for steel and steel products from virtually all major suppliers, including some developing countries and territories (Brazil, Republic of Korea, Mexico, Taiwan Province of China, Trinidad and Tobago, Venezuela and Yugoslavia). 54/ Countervailing duties and anti-dumping measures have been another tool frequently used to control imports. These have affected imports of various steel products from Canada, Japan and Sweden, as well as from a number of developing countries and territories, including Argentina, Brazil, India, Republic of Korea, Singapore, Taiwan Province of China, Thailand and Turkey.

93. Recently the United States took the initiative of negotiating an agreement with all major steel-exporting countries to limit domestic subsidies and progressively phase out government support for their steel industries. This commitment forms part of the new series of bilateral agreements in tandem with new quotas under renewed VER arrangements.

94. Throughout the 1980s, the EEC and its member States applied a comprehensive set of policies toward the steel sector, including financial support, the regulation of Community steel production, and the restriction of foreign imports. A specific Community programme was instituted in 1980 in order to promote new economic activities in zones adversely affected by the restructuring of the steel industry ("RESIDER-programme"). 55/ Furthermore, between 1985 and 1988, the EEC operated a system of production quotas at the enterprise level which was intended to be accompanied by restructuring programmes, including rationalization and the elimination of excess capacity. Owing to a somewhat improved situation in the steel market, this system was replaced by the statistical surveillance of production and deliveries of certain sensitive ECSC products. 56/ Following a period of significant subsidization of steel production by member States, since 1985, under new EEC-wide regulations, State aid to the steel industry has been limited to specific purposes such as R & D, environmental protection, plant closures and investment under regional aid schemes. 57/ Community financial support for R & D, and social and regional programmes complement the Community policy for steel restructuring.

95. Protection against imports has been a major element in the Community's policies of support for the steel industry. Voluntary export restraints, export quotas, and price monitoring or minimum price undertakings have been imposed for ECSC steel products since 1978 on Japan, Spain, EFTA countries and the countries of Eastern Europe. Four developing countries were also subject to quantitative controls (Brazil, the Republic of Korea, Venezuela and Yugoslavia). 58/ While Community-wide restrictions were substantially liberalized for developed countries in 1989 by terminating VERs with Japan and replacing those with EFTA countries by a special consultation clause, VERs were further extended with respect to imports from the countries of Eastern Europe and from developing countries.

96. Since the yen began appreciating in 1985, Japan has relied mainly on co-operation with its national steel enterprises to elaborate their own restructuring plan. This plan foresees major capacity reductions, as well as a diversification into other industries. Government support has taken the form of financing for rationalization and R & D, rather than of protectionist measures.

97. While adjustment policies have failed to accomplish the full extent of planned capacity reduction, substantial progress has been made in this direction. Several plants have been closed, productivity has improved sharply in most developed countries, while employment has dropped dramatically. In the EEC alone, between 1980 and 1988 employment declined by about 300,000 workers. Employment decreased by 20 per cent or more in the United States, Japan and certain other developed countries. Thus, protectionism has been unable to prevent the emergence of substantial unemployment in this industry. Moreover, it has raised costs for user countries, creating problems of competitiveness for them, and it has certainly been very effective in limiting the exports of developing countries.

98. Supply-side constraints have also limited steel exports in some developing countries. Even in countries such as Brazil, Venezuela, India and Mexico, individual enterprises need to replace aging equipment and technologies and to readjust production to changing patterns of demand, for example, from round to flat products facing more dynamic demand trends. 59/ However, investment for modernization or for expansion has been seriously hampered for many years by the lack of capital and by foreign-exchange shortages.

4. Prospects for developing countries

99. In the absence of significant adjustment and a rollback in protectionism in the developed countries, the steel export prospects of developing countries as a whole are not bright. World demand for steel is expected to stagnate in the medium-term future. Major reasons include a substantially lower consumption of steel, due partly to a more efficient use of steel in the production of finished steel products and in user industries, partly to switching to substitutes such as aluminium and plastics. Furthermore, consumption in developed countries will be affected by shifts towards less steel-intensive economic activities and services, and slower growth of major user industries, as consumption of their products approaches saturation levels.

100. The development potential for the steel industry in developing countries will reside to an important extent in domestic market growth and the development of major user industries and their export capacities. For the time being, their average per capita consumption is still far below that of developed countries.

101. Persistent excess capacity in the developed countries will make it necessary for them to continue their restructuring efforts. This is likely to involve further capacity and employment cuts and the rationalization of production. In spite of these further pressures for adjustment, protectionist pressures need to be resisted, and protectionist measures progressively reduced. Instead, more emphasis could be placed on active restructuring policies and on assisting steel enterprises to diversify into further processing or into other industries.

C. Automobiles and components

1. Major shifts in production and trade

102. The motor vehicle industry has been one of the most dynamic export sectors in developing countries during the 1980s; these countries' exports grew at an average annual rate of 21 per cent, and their share in world exports doubled between 1980 and 1987 (see table 14). This growth was mainly achieved as from 1984. This sector has been a focus of export growth for certain industrially advanced developing countries and now ranks among the top export sectors of the Republic of Korea, Brazil, Mexico and Yugoslavia.

103. The most significant trend in the industry worldwide has been the continuous rise of Japan's share in world production and trade and, more recently in foreign investment and overseas production. Other developed countries have also been able to maintain or acquire important positions in production and trade, in particular the Federal Republic of Germany, Spain and, more recently, Canada.

104. The export success of developing countries has been achieved mainly with exports of passenger cars to the North American market. Engines and other parts have also made an important contribution and grew faster than average exports of manufactured products during the 1980s.

105. Exports of cars and engines are largely concentrated in the four major exporting countries. Some other developing countries are also pursuing vigorously the development of exports in these products. Thus, in 1989 Malaysian and Indian producers started exports of passenger cars to the United Kingdom and France, respectively, and Thailand began exporting engines. Producers in other developing countries, in particular in South-East Asia, also have plans to develop exports of cars or engines to major developed-country markets. Components are exported already by a wider range of countries and territories, including Taiwan Province of China, ASEAN countries, India, Argentina, Venezuela, Chile, Morocco and Turkey.

2. Major factors underlying these shifts

106. The main reasons for change in the international automobile industry lie in the introduction of new standards of productivity, quality and flexibility by Japanese car producers. The new Japanese productivity standards have affected the automotive industries of developed and developing countries alike. 60/

107. Some of the more industrially advanced developing countries have gradually become competitive in this industry. Large-scale production has gradually been built up in a small number of developing countries, to the point where some producers could become competitive, in exporting either automobiles or components. Deliberate export promotion policies for the sector played an important role in the increase in exports experienced during the 1980s. However, developing-country exports have contributed little to the strong pressures for adjustment which exist in the international car industry. For the industry as a whole, import penetration by developing countries has remained marginal (see table 15). Roughly half of the exports of developing countries are carried out by one company each from the Republic of Korea and Yugoslavia under their own brand names and within their own

marketing channels. They are largely geared to the small-car market in the United States and Canada. The remaining exports of cars from developing to developed countries take place between subsidiaries of transnational corporations and their parent companies (in the case of Latin American exports) or within joint-venture and export marketing arrangements between firms from the Republic of Korea and their partners.

3. Adjustment policies

108. Corporate and government policies have interacted closely in the intense process of adjustment that has been under way in the United States and Western Europe to reduce the industry's excess capacity. Companies have invested heavily in automatization and modernized their production systems, and increased international co-operation. In spite of these efforts and of relatively favourable markets since the mid-1980s, the financial positions of several enterprises remain weak, and pressures for rationalization, mergers, acquisitions and plant closures continue.

109. Some corporate policies have contributed to the export success of developing countries: relocation of production of motors and other components to low-wage developing countries, decentralization of production of certain models or world-wide sourcing of parts for the company as a whole, sub-contracting of labour-intensive components or relocation of labour-intensive processes to geographically close developing countries, and closure of some older domestic plants.

110. Government policies toward the industry have featured a combination of financial support and protectionism. Quantitative restrictions and VERs have been in most cases directed selectively at Japan, but some developing-country exporters (particularly from the Republic of Korea) have also been affected. Temporary or permanent exclusion from GSP schemes and pressures on some of these economies to revalue their currencies have also had an adverse impact on exports of cars and components.

111. In developing countries, comprehensive government programmes for the automobile sector have played a major role in attempts to improve the industry's competitiveness. The car industry in these countries originally developed under conditions of virtually total prohibition of car imports, substantial controls on imports of parts and components, stringent national contents rules, restrictions in the number of car producers and models, and government barriers to entry for new investors.

112. Two distinct avenues have led to export success. On the one hand, Brazil and Mexico have negotiated with the transnational corporations dominating their vehicle and motor production to accelerate modernization and exports of vehicles and parts. 61/ Specific export incentives and more favourable exchange rates in real terms have contributed to larger exports. On the other hand, the development of the car industry of the Republic of Korea and Yugoslavia has relied much more heavily on domestic firms. 62/ Co-operation with leading transnational corporations took the form of joint ventures, licensing and export marketing. The appreciation of the Korean won, steep wage increases and protectionism in major markets have led car manufacturers in the Republic of Korea to adopt similar adjustment policies as the Japanese companies: overseas investment in production of cars and components in Canada and more intense recourse to sub-contracting of parts and components in lower-wage countries in South-East Asia.

4. Prospects for developing countries

113. Given the complexity of production and marketing and the excess capacity prevailing in major markets, the number of car exporters among developing countries is likely to remain small. Prospects are more encouraging for the components industry: trends in consumption growth are more favourable, and the labour cost advantage of developing countries is more decisive. However, the technical and managerial requirements of this industry have increased substantially as a consequence of new production systems in the international car industry. Component suppliers are now being required to take the initiative for developing products on their own, which may increase the demands on their technological capacities, investments and marketing abilities. Therefore, policies and measures to exploit the potential for expansion of component production and exports should aim at strengthening the capacity of domestic component suppliers to serve car manufacturers in major markets.

D. Consumer electronics

1. Major shifts in trade

114. The consumer electronics sector (subsequently electronics sector) 63/ was extremely dynamic during the 1980s, experiencing above-average rates of growth of trade, production and consumption. Electronics production expanded particularly strongly in technologically advanced products. The product spectrum widened significantly. In the field of consumer electronics, several new products were launched, such as video cassette recorders (VCRs) and compact disc players. The electronics industry remains highly interlinked, firms often producing in several product areas. Generally, consumer electronics companies are also engaged in the production of telecommunication equipment, electronic components and armaments.

115. The value of world trade in electronics grew at an average rate of 12 per cent per annum to reach $100 billion in 1987. The share of electronics in world trade rose from about 2.4 per cent to 3.9 per cent. The composition of world electronics trade shifted towards highly sophisticated and technologically advanced products.

116. World trade in electronics involves only very few countries. While the bulk of trade in electronics still takes place among developed countries, developing countries increased their share of world exports of these products from 14 per cent in 1980 to 19 per cent in 1987 (see table 14).

117. Besides the three leading exporters (Japan, the United States and the Federal Republic of Germany), several relatively more industrialized developing economies (particularly the Republic of Korea, Taiwan Province of China and Singapore) are also major exporters of consumer electronics. Electronics exports are also important for some other developing countries, such as Malaysia, the Philippines, Thailand and Mexico. The major importers are the United States, the Federal Republic of Germany, the United Kingdom, Hong Kong and Singapore.

118. The exports of developing countries are concentrated primarily on technologically mature products, the production of which has declined in developed countries. Developing countries which have been successful in

expanding their electronics exports built this expansion initially on only very few products. During the 1980s, most of the developing countries exporting electronics tended to broaden the product spectrum of their electronics exports, even if some of them, such as the Philippines and Malaysia, continued to remain highly dependent on one or two products.

2. Major factors underlying these shifts

119. The shortening of product cycles and volatile consumer preferences have led to an intense competition among electronics companies. This has induced a world-wide restructuring wave in the electronics industry, particularly in developed countries. Companies have responded to competitive challenges by introducing technological innovations regarding products and production processes and by integrating design, manufacturing and marketing functions. 64/ Rising protectionism, higher labour costs, and the sharp appreciation of the yen (in the case of the Japanese companies) have also impelled them to source more mature components and products in lower-wage developing countries.

120. While the import penetration of products from developing countries has grown substantially, it remains relatively limited, ranging from about 1 per cent in Japan to about 10 per cent in other developed countries (see table 15). Between 1980 and 1987, the share of developing-country exports in developed-country imports of electronics grew only modestly, from 26 to 29 per cent.

121. An important portion of developing countries' exports consists of intra-firm trade, original equipment manufacturing (OEM) 65/ and sub-contracting of parts and components. Thus the impetus for adjustment in the electronics industry did not stem so much from an expansion of autonomous developing-countries' exports of electronics as from the strategies of leading electronics companies. The major reason for the rapid development of production and exports in some developing countries has been low labour costs, the availability of adequate skills, and the rapid maturation of some electronics products.

3. Adjustment policies

122. Corporate strategies have already been alluded to above. On the other hand, Governments have intervened increasingly to effect adjustment in the electronics industry. In developed countries, changing comparative advantage positions have given rise to increased use of trade measures to protect the national electronics industry. There has been an increased use of non-tariff measures such as VERs and orderly marketing agreements (OMAs) by the United States, and VERs and anti-dumping action by the EEC. 66/ Protectionist measures in this industry have affected both a range of technologically advanced and fast-growing products, such as video cassette recorders and compact disc players originating in Japan and the Republic of Korea, and also products with saturated markets, such as TV sets and TV tubes originating in Hong Kong, the Republic of Korea, Singapore and Taiwan Province of China.

123. Developed countries have used a variety of industrial policy instruments to bring about adjustment in the electronics industry. These policies have focused on making competition laws more flexible, on government grants and loans for R & D, and on purchasing orders and protected supplier positions. 67/

124. As regards policies towards the electronics industry, three groups of developing countries and territories can be distinguished. 68/ While certain countries built initially the development of their electronics industry on the internal market and on import substitution (e.g. Argentina, Brazil, China, India, Mexico), others based it on export-oriented production, especially by attracting production units of transnational corporations. In the latter group a distinction can be made between the economies which have successfully absorbed the initial foreign technology to build up an integrated national electronics industry (Hong Kong, the Republic of Korea, Singapore and Taiwan Province of China) and the countries which have attained high export growth and competitiveness through sub-contracting of production of parts and components from affiliates of transnational corporations, but which have not yet been able to build up a strong national electronics industry and to integrate such operations into their industrial structure (e.g., Malaysia, Philippines and Thailand).

125. In the first group of countries, local mastery of foreign electronics technology is still deficient, and domestic firms have not kept pace with world technological progress in the sector. In these countries, policies toward the industry have generally featured "reserved markets" for domestic producers and restrictive trade measures. 69/ In recent years there has been a tendency in some of these countries to reduce protection and liberalize foreign investment regulations.

126. The second group of countries has absorbed know-how, as a result of the diffusion of technology from branches of foreign firms, joint-ventures, and foreign sub-contracting to domestic firms. The Governments of these countries have promoted the interaction between local and foreign firms, acquiring know-how in more complex stages of processing than the mere assembly of parts and developing their own local electronics industry. 70/ The major instruments used for this purpose have been the liberalization of foreign investment codes (while retaining or strengthening provisions to ensure technology transfer and local processing), the encouragement of various forms of association with foreign firms, and support for domestic research. Tariffs and non-tariff measures affecting imports were progressively reduced over the 1980s, partly because of the increasing use made by local producers of outward processing in lower-wage countries.

127. The third group of countries has been confronted with the dilemma of continuing to attract foreign investors while accelerating the local integration of the subsidiaries of foreign electronics firms established in export processing zones (EPZs). These countries have had to rely to an even greater extent on foreign direct investment, joint ventures and other arrangements with transnational corporations. In this context, the strengthening of existing EPZs and the creation of new ones have played key roles.

4. Prospects for developing countries

128. The policy options for developing countries to strengthen or expand their electronics sector are principally governed by the level of development of their local electronics industry. Most countries with less integrated electronics industries lack capital and skills to develop a sophisticated electronics industry on their own. Their programmes could therefore focus on attracting foreign companies in order to develop local know-how. The

countries which have a relatively strong production base in electronics or assembly activities need to expand their market access in major consuming countries, take advantage of economies of scale and gain access to the most recent technology. They also need to strengthen technological diffusion within the country.

E. Textiles and clothing

1. Major shifts in production and trade

129. Sluggish demand and production, together with rapid growth of foreign trade and intensified protection by most developed countries, constituted the framework for structural change in the textiles and clothing industry during the 1980s. Though world production recovered after an initial recession at the beginning of the 1980s, growth remained slow (1.2 per cent per annum for textiles and 0.7 per cent per annum for clothing between 1980 and 1988). Shifts in production shares from developed countries to developing and Eastern European countries were accentuated by the stagnation of the textile industry and a contraction of the clothing industry in developed countries. The expansion of production in developing countries was faster, but remained below the average for the industrial sector as a whole.

130. It is in this sector that the growing competitiveness of the developing countries in world markets is most clearly in evidence. Exports grew particularly fast (between 11 and 15 per cent per annum) in developing countries and in China and contributed to an important extent to the export success of developing countries in manufactures. As a result, the share of developing countries in world exports rose from 22 per cent to 30 per cent in textiles and from 35 per cent to 48 per cent for clothing (see table 14). Export growth was strong in an increasing number of developing countries and territories. The three largest exporters, Hong Kong, the Republic of Korea and Taiwan Province of China maintained their leading positions among top-ranking exporters, but lost considerable market share in products subject to binding import restrictions in the United States and the EEC. 71/ On the other hand, several other developing countries expanded their clothing exports particularly rapidly during the 1980s, including Turkey, Indonesia, Malaysia, Thailand, Singapore, Bangladesh, Pakistan, Sri Lanka, Yugoslavia, Costa Rica, the Dominican Republic, Jamaica, Mauritius, Kenya, Tunisia and Morocco.

2. Major factors underlying these shifts

131. Pressures for adjustment in these industries have been intense and have come from various sources, including sluggish demand and changes in fabrics, product design, technology and marketing methods. The high labour intensity of the clothing industry, and partially also of textiles, and the substantial labour cost differentials between developed and developing countries continued to be the major factor underlying the long-term shift of production and exports from developed to developing countries and other low-cost producers.

132. The differing potential for automatization in the two branches of the industry affected the speed and intensity of the shifts in market shares towards developing countries. In the clothing industry, where the scope for automatization still faces important limits, import penetration by developing countries has risen sharply in developed-country markets and now ranges

between 20 per cent in Japan and almost one half in the Federal Republic of Germany. As a result, a major portion of standardized clothing products and a significant part of labour-intensive production processes, such as sewing operations, have by now been transferred to developing countries or other low-cost producers in Eastern Europe and Asia. On the other hand, certain developed-country producers (e.g. in Italy) have maintained a high degree of international competitiveness or have even achieved substantial export success at the high-fashion end of the market.

133. As compared to clothing, import penetration by developing countries in major world markets for textiles has remained relatively limited, as it ranges from 5 per cent in the United States, Japan, France and Italy to 10 per cent in the Federal Republic of Germany and the United Kingdom. Gains in market share have also been considerably more moderate than for clothing (see table 15). In this branch, two factors have contributed to slow down the export gains of developing countries. First, developed countries have made substantial progress in automatization, which has largely converted textiles from a labour-intensive to a capital-intensive industry. Few developing countries have been able to follow these changes at the same pace, so that developed countries have partly regained their competitiveness. Second, the import restrictions imposed by developed countries have exerted a major restraint on the exports of leading developing-country producers, in particular those which also engaged in major mechanization and automatization of production.

134. Rising import penetration from developing countries has not been the only factor leading to adjustment pressure in the textile and clothing industry in developed countries. There has also been fierce competition among developed-country producers themselves. Furthermore, the clothing industry has become extremely volatile, as it has come to focus on fashion orientation and being close to the consumer - developments which have required increasing flexibility in production and have shortened product life.

3. Adjustment policies

135. Clothing and textiles firms in developed countries have responded differently to adjustment pressures. With regard to textiles, responses have centred to a large extent on rationalization, automatization, and greater emphasis on higher quality. Clothing industries have focused on achieving flexibility and a high degree of specialization. They have explored market niches for high-fashion products, switched to new materials and higher value-added products, and promoted products which required being close to the consumer. Firms have also introduced integrated computer-aided design, cutting operations and quality control, as well as the establishment of world-wide computerized marketing networks and computer-based "quick response strategies" to rapidly changing consumer demand. 72/ Large developed-country producers have also been moving into major foreign consumption centres through foreign acquisitions, joint ventures and mergers.

136. Certain adjustment policies of developed-country firms have contributed to the clothing exports of developing countries. There has been a trend towards relocating production in developing countries. Furthermore, sub-contracting under outward processing régimes accounts for about 10 per cent of the clothing imports from developing countries of the United States and the Federal Republic of Germany and underlies the export

success of several Caribbean, Central American and Mediterranean countries. The Governments of several developing countries have supported such new trends in corporate policies by promoting EPZs, improving conditions for the establishment of joint ventures and relaxing foreign direct investment regulations.

137. The policies of the developed countries towards textile and clothing imports have become increasingly restrictive. During the 1980s bilateral quotas and VERs within and outside the framework of the Multifibre Arrangement (MFA) spread rapidly to new countries and products, as soon as such exports emerged; they were triggered off by much lower market shares than in the 1970s. In certain cases, access to GSP and other regional preferential schemes were made conditional upon accepting export limitations. In addition, tariff protection is still high in most developed countries and has an important incidence on developing countries because of exclusions, ceilings, tariff quotas or other limitations to GSP benefits. Even where imports are limited by MFA quotas, in some cases developed country importers have had recourse to anti-dumping action.

138. Protectionist policies have affected established textile and clothing exporters among the developing countries and have imposed ceilings to export and production growth in newly emerging exporting countries. If relatively fast export growth has still taken place, in spite of the MFA and other restrictions, this has been due to a number of factors, including a shift in exports towards higher-value products and increased use of quota facilities by domestic producers of exporting countries. 73/ Another important factor has been the relocation of investment by major developing suppliers from the Republic of Korea, Hong Kong, Taiwan Province of China to other developing countries under-utilizing their quotas or exempt from them (e.g. Bangladesh, Sri Lanka, Thailand, Mauritius). In other specific cases, export success has preceded, and indeed has brought about the imposition of quantitative limitations. There also has been some softening of restrictions in favour of individual least developed countries; or more favourable treatment within certain regional preferential arrangements, such as those between the United States and the countries included in the Caribbean Basin Economic Recovery Act (CBERA) for assembly products or the EEC agreements with ACP countries and a few Mediterranean countries.

139. Complementary government adjustment measures and programmes of developed countries in textiles and clothing have included regional aid, low-interest loans, investment and employment subsidies and encouragement of enterprise co-operation. These measures have been particularly important in the EEC, although disciplines on government assistance to the clothing industry have been considerably tightened. In the United States, government involvement in the restructuring of the industry has been limited. On the other hand, in Japan, several specific government measures have been taken in support of the clothing industry, including investment subsidies and programmes to support plant modernization and the scrapping of excess capacity.

140. Although the adjustment programmes involved heavy costs, they did not prevent heavy employment losses. Between 1980 and 1987 the textiles and clothing industry of the United States lost more than 250,000 jobs, while the EEC's labour force in these branches fell by one quarter. These programmes

were insufficient to solve the adjustment problems of these industries. Their limited effectiveness is best demonstrated by the fact that, in spite of the extremely long duration of protection, recent trends point towards increasingly stringent restrictions.

4. Prospects for developing countries

141. The major trends observed in the textiles and clothing industries of developing countries are likely to continue over the medium term: a further move upstream towards greater value-added export products and the adoption of new technologies by established exporters; and the spread of clothing exports towards emerging exporting countries. The most crucial issue, however, relates to improved market access, and this will depend on whether developed countries are in effect ready to intensify their adjustment process in these industries and to remove protectionism. The phasing out of restrictions under the MFA and the integration of the textiles sector into GATT, as agreed to in the mandate for the Uruguay Round of Multilateral Trade Negotiations, is of particular importance to developing countries. Opportunities in new markets, such as certain Eastern European countries and in some rapidly growing developing countries, also need to be explored.

Notes

1/ See Inter-American Development Bank, Economic and Social Progress in Latin America, 1989 Report (Washington, D.C.), p. 33.

2/ At the time of writing, only fragmentary trade and output data were available for 1989. Therefore, the figures and analyses for 1989 in this report are based on forecasts made by the secretariat.

3/ See J. A. de Castro, "Determinants of protection and evolving forms of north-south trade", UNCTAD Discussion Paper No. 26, June 1989, pp. 20-26.

4/ For technical reasons, it was possible to carry out this exercise only for North Africa, for a subregion of Latin America (Argentina, Brazil and Mexico) and the countries of ASEAN.

5/ These countries are: United States, Canada, Australia, New Zealand, Japan, Austria and the EEC. See for a detailed analysis, OECD, Agricultural Policies, Markets and Trade: Monitoring and Outlook 1989 (Paris, 1989).

6/ The producer subsidy equivalent is the payment that would be required to compensate agricultural producers for the loss of income resulting from the removal of a given policy measure, other things being equal.

7/ For the role of regional policies in structural adjustment, see also section B below.

8/ See OECD Economic Outlook, No. 45, June 1989 (Paris, 1989), table 51.

9/ For instance, Australia, Belgium, Finland, Federal Republic of Germany, Netherlands, Sweden, United Kingdom and United States. For a brief overview see OECD, Industrial policy developments in OECD countries, Annual Review 1988, op. cit., chapter III, A. 1.

10/ See OECD Economic Outlook, No. 45, June 1989 (Paris, 1989), table 53.

11/ Ibid., table R 6.

12/ Ibid., table 5.

13/ See OECD, Employment Outlook 1989 (Paris, 1989), table A.1. Expenditure on unemployment compensation was in all countries markedly higher than the resources allocated to active programmes of labour market training. In some countries, unemployment compensation accounted for 2.5 per cent of GDP and more.

14/ Denmark, Ireland, New Zealand and Sweden.

15/ The expenditure on special youth measures has been slightly higher than the expenditure on labour market training for adults in Australia, France, Italy, Spain and the United Kingdom.

16/ Portugal has recently introduced such assistance.

17/ See also "Labour market flexibility: a controversial issue", in The OECD Observer, No. 141 (September 1986).

18/ E.g. Denmark (1.3 per cent) and France (0.94 per cent in 1987).

19/ In 1987, relatively sharp increases of around 50 per cent and more in total expenditure on labour market training have been recorded in a number of countries, including Australia, Greece, New Zealand and Spain. In the United States, the Trade Adjustment Assistance Act (TAA) which targets workers displaced by imports, and the Job Training Partnership Act (JTPA) are the principal vehicles for assisting dislocated workers. Both programmes currently concentrate on retraining. The programmes for trade adjustment assistance (TAA) allocated $50 million in 1987 for retraining and job search of workers displaced by increased imports, double the amount made available in 1986. See also OECD, Employment Outlook 1988 (Paris, 1988), chapter 3, annex. As a part of more general policies under the Job Training Partnership Act, the Employment and Training Administration in the United States has recently launched a new programme, backed by a fund of $980 million, for the promotion of training and re-employment of jobless workers. See OECD, Industrial policy developments in OECD countries, Annual Review 1988 (Paris 1989), chapter III.

20/ See also OECD, Economies in transition: structural adjustment in OECD countries (Paris, 1989), chapter 2.

21/ See F. Klau and A. Mittelstädt, "Labour market flexibility", OECD Economic Studies, No. 6, Spring 1986.

22/ See OECD, Employment Outlook 1987 (Paris, 1987), chapter 3.

23/ See M. Emerson, "Regulation and deregulation of the labour market", European Economic Review, No. 32, 1988.

24/ In Canada, a four-year Federal Microelectronics Strategy was introduced in 1987, supported by the Government with C$90 million. Denmark set up a Biotechnological Development Programme in 1986 and is preparing a Materials Technology Programme to promote the industrial use of research findings in materials engineering. In Spain, the National Electronics and Information Plan intended to encourage the development of the country's computer and electronics industry is now in its second phase. Portugal has recently launched a financial scheme in support of investment projects related to research in microelectronics, information technologies, new production techniques, biotechnology and new materials. A particularly extensive programme in the United Kingdom is ALVEY which assists some 110 firms and aims at stimulating research projects in artificial intelligence, software engineering and very large-scale integration and computing architectures. See also OECD, Industrial policy developments in OECD countries, Annual Review 1988 (Paris, 1989), chapter III, B.

25/ See OECD, Structural adjustment and economic performance (Paris, 1987), table 6.10. In 1983, government funding as percentage of total R & D expenditure in high R & D intensive sectors amounted to 43 per cent in the United States, 44 per cent in the United Kingdom and 36 per cent in France.

26/ For statistical data, see OECD Main science and technology indicators, 1982-88(2), (Paris, 1988), tables 17 and 18.

27/ See OECD, Industrial policies, developments and outlook in OECD countries, Annual Review 1986 (Paris, 1986), part I, chapter IV, 2.

28/ The early co-operative ventures were in atomic power and later in aerospace. In 1984 Esprit (the European Strategic Programme on Information Technology) was launched. This programme involved pre-competitive research projects in micro-electronics, software, office automation, computer-integrated production and advanced data processing. Esprit has a fairly modest budget: 1 per cent of total European R & D spending on information technologies. Its role, however, is intended to be a catalyst in stimulating co-operation between and among universities, research centres and enterprises. Esprit projects necessarily involve two or more independent industrial partners from two different member States. Other projects launched by the Community along similar lines include COMETT (Community in Education and Training in Technology) which finances exchanges of students and scientists between enterprises and universities; RACE (Research and Development in Advanced Communications for Europe) devoted to telecommunications; BEP (Biomolecular Engineering Program) and Eureka (European research Co-ordination Agency), which emphasizes projects and consultation in automation, robotics, biotechnology, ceramics and research networks.

29/ See W. Gerstenberger, "Strukturwandel in den führenden Industrieländern: Setzen alle auf die gleichen Pferde?", ifo-schnelldienst 5-6/89.

30/ For an analysis of developments in the United States see R.L. Florida and M. Kenney, "Venture capital-financed innovation and technological change in the USA", Research Policy, vol. 17, No. 3 (June 1988).

31/ Some success has been achieved in the United Kingdom. In Denmark, a venture capital company is currently being established on a private basis, although partly funded by the Bank of Denmark. See OECD, Industrial policy developments in OECD countries. Annual Review 1988, op. cit., chapter III.B.

32/ See also OECD, Venture capital: context, development and policies (Paris, 1986); OECD, Venture capital and information technology (Paris, 1985).

33/ In the United States, the Department of Commerce supports the project "TC2" of a group of fibre, textile and clothing companies. In the EEC, the development of new technologies in clothing manufacture and other sectors such as textiles, chemicals, machine tools and motor industry has been promoted under the programme for "Basic Research in Industrial Technologies for Europe" (BRITE). In Japan, MITI promotes research into automated 3-dimensional sewing. See also R.P. Dore, with contributions by K. Toira, Structural Adjustment in Japan, 1970-1982, ILO, Geneva, 1986.

34/ Such as computer-aided design, computer-aided manufacturing, computer numerically controlled machinery, flexible machinery systems, computerized production and inventory control and automated stores.

35/ In 1987, the Federal Government of Canada introduced a new policy for the management of key federal laboratories and external technology centres, aimed at promoting technology diffusion by strengthening the links between these institutions and industry. In the United States, an Executive Order "Facilitating access to science and technology" of 1987 added presidential support to the 1986 Federal Technology Transfer Act, which enables government laboratories to collaborate more closely with the private sector. In France, the programme of work of the government agency ANVAR (Agence Nationale pour la Valorisation de la Recherche) was modified so that more emphasis is placed, inter alia, on information about technology and stepping up co-operation between enterprises and technical agencies. In the United Kingdom, the so-called LINK programmes are designed to reinforce joint research at the pre-competitive stage with industrial relevance between higher education institutions and research councils on the one hand and private companies on the other. See also OECD, Industrial Policy Developments in OECD countries, Annual Review 1988, op. cit., chapter III, B.

36/ Japan's Key Technology Centre and Norway's National Institute of Technology are two examples of public or semi-public institutions with functions which include the dissemination of technology to small- and medium-scale enterprises. The United Kingdom has announced plans for establishing seven regional centres for transferring advanced technology to local firms. A programme with similar aims is being introduced by the Government of the Netherlands. See OECD, Science and Technology Policy Outlook 1988 (Paris, 1988), chapter 4.

37/ See OECD, Industrial policies, developments and outlook in OECD countries, Annual Review 1986 (Paris, 1986), annex to part I: Current industrial policy issues.

38/ For technopolis development plans in Japan, see OECD, Science and Technology Policy Outlook 1988 (Paris, 1988), table 1.

39/ Including the European Regional Development Fund; the European Investment Bank; the European Agricultural Guidance and Guarantee Fund; the European Coal and Steel Community; and the so-called New Community Instrument.

40/ G.J. Croxford, M. Wise and B.S. Chalkley, "The reform of the European Regional Development Fund: a preliminary assessment", Journal of Common Market Studies, vol. 26, No. 1 (September 1987); B. de Witte, "The reform of the European Regional Development Fund", Common Market Law Review, vol. 23, No. 2 (Summer 1986).

41/ See OECD, Employment Outlook 1989 (Paris 1989), chapter 3.

42/ See OECD, Industrial policy developments in OECD countries, Annual Review 1988 (Paris, 1989), chapter III, section K.

43/ In Spain, assistance to regions is currently provided under the programme for "Industrial Zones in Decline", in co-ordination with the regional and social policy initiatives of the EEC. Spain benefits, for instance, each year from part of the European Regional Development Fund ranging between 17 per cent and 24 per cent according to its own capacity to draw up programmes and projects. In Portugal, a new regional incentive system was introduced at the end of 1986, with investment support, an employment

premium to encourage job creation and support for innovation and modernization projects as main components. See OECD, Industrial policy developments in OECD countries, Annual Review 1988 (Paris, 1989); OECD, Regional policy developments in OECD countries. (Paris, 1987).

44/ See also the discussion in U. Hiemenz, R.J. Langhammer et. al., The Competitive Strength of European, Japanese and US Suppliers on ASEAN Markets (Tübingen: J.C.B. Mohr, 1987), chapter 6.

45/ The other established exporter of manufactures from the same region - Hong Kong - has traditionally maintained liberal trade policies. Singapore, after its separation from Malaysia in 1965, went through a short import substitution phase up to 1967. While trade policies in Singapore have been liberal, there has been a considerable degree of government guidance in industry. Around the same time, several other countries - particularly Brazil, Chile and Colombia - also adopted incentives to encourage exports, but they were less persistent in the application of such policies and less thorough-going in their policy reforms.

46/ Industrial policies refer to policies other than those in the trade area which affect the allocation of resources to different sectors. Thus, even when trade policies are neutral (as is largely the case, for example, in Singapore), inter-sectoral resource allocation can be affected by inter-sectoral differences in policies in areas such as fiscal policies, credit availability and interest rates, and wages. The Republic of Korea and Taiwan Province of China have utilized, since the mid-1960s, highly selective trade and industrial policies.

47/ For a discussion of how the incentive system was structured and changed over time to ensure the attainment of international competitiveness in increasingly more sophisticated manufactures, see H. Pack and L.R. Westphal, Industrial strategy and technological change: theory vs. reality", Journal of Development Economics, vol. 22 (1986).

48/ OECD, The Newly Industrializing Countries - Challenges and Opportunities for OECD Countries (Paris, 1988), pp. 39-43.

49/ For a comparison of the experiences of the Republic of Korea and Chile, see Hyung Kook Kim and Guillermo Geisse, "The political economy of outward liberalization: Chile and South Korea in comparative perspective", Asian Perspective, vol. 12, No. 2 (Fall-Winter 1988).

50/ See Trade and Development Report 1989, chapter V, "Trade Policy Reform and Export Performance in Developing Countries in the 1980s".

51/ Ghana and Nigeria also introduced a fairly drastic trade policy reform in the mid-1980s. However, Ghana still maintains significant non-tariff measures and Nigeria's tariffs remain high and have recently been increased. During the 1980s, Mauritius has relied extensively on foreign investment in its export processing zone (EPZ) to generate exports of labour-intensive manufactures. These exports have been encouraged by the EPZ facilities, a favourable exchange rate, and preferential access to markets. Exporters located in the EPZ face a policy environment similar to that of Hong Kong firms. However, given the small size and special characteristics of the Mauritian economy, its policies are not applicable to most other developing countries.

52/ Admittedly, during the 1980s exchange rate stability has been difficult to achieve for some of these countries, which have been suffering from macroeconomic disorder, largely as a consequence of the debt crisis.

53/ In 1989, Venezuela introduced wide ranging trade policy reforms in the direction of a substantial liberalization of its import régime, accompanied by a substantial devaluation of the bolivar. While it is too early to assess the results of this policy shift, it can be said that these changes would place Venezuela close to the first group of countries mentioned in this chapter.

54/ Review of Developments in the Trading System, September 1989 - February 1989, L/6530, GATT, July 1989, pp. 161 ff.

55/ Council Regulations (EEC) No. 328/88, 2.2.1988, OJ L/33 and No. 2616/80 of 7.10.1980, OJ L/271.

56/ Decision No. 2448/88/ CECA by the Commission of 29 July 1988, OJ 212, 5.8.1988.

57/ Decision No. 322/49/ ECSC of the Commission, 1.2.1989, OJ No. L 38/8 of 10.2.1989.

58/ GATT, Review of Developments in the Trading System, op. cit., pp. 161 ff. and Council Decision 88/653 (ECSC) of 19 February 1988, OJ L 372.

59/ UNIDO, Industrie et développement dans le Monde, Rapport 1988/89, Vienna 1989, p. 247.

60/ For further elaboration of the adjustment processes at work, see D.T. Jones, Structural Adjustment in the Automobile Industry (Paris, OECD, 1988).

61/ Bruno Jetin, "Modernisation et compétitivité dans l'industrie automobile: le cas brésilien", Problèmes d'Amérique Latine, ND; No. 4874, Paris, 1988; Juan R. Rocha, "Las Exportaciones: Respuesta a la Crisis de la Industria Automovilistica", Comercio Exterior, Mexico, November 1988.

62/ J. Ph. Rennard, "La Corée du Sud, nouveau grand de l'industrie automobile mondiale", Industrie et Développement International, Paris, February 1989; and Automobile Industry in Korea 1988, Korea Auto Industries Co-operative Association (KAICA), Seoul, Republic of Korea.

63/ The consumer electronics sector relates to all the products under the SITC Rev.2 heading 76 and 776. They broadly correspond to the ISIC 3832 and principally exclude the armament products and computers. However, given the high degree of interlinkage of the electronics industry, a breakdown reflecting exclusively the consumer electronics sector does not always make sense, particularly when looking at the organization and structure of firms or at government intervention. Consequently, when discussing such issues, the text refers to the electronics industry as a whole.

64/ "Recent developments in the consumer electronics industry", STI Review, No. 5, OECD, Paris, April 1989.

65/ This concept refers to a particular form of sub-contracting whereby the sub-contractee produces a complete product which is marketed under the sub-contractor's brand name.

66/ M. Humbert, "Global study on world electronics", UNIDO document ID/WG.478/2 (SPEC), Vienna 1988: and M. Kostecki, "Electronics trade policies in the 1980s", Journal of World Trade, March 1989.

67/ For more details on R & D programmes, see M. Humbert, op. cit.

68/ For a similar classification, see Strategies for integrated development of the electronics industry including software, Issue paper No. 1, UNIDO document ID/WG.491/1, Vienna, 1989.

69/ See, for example, O. Hieronymi, The domestic and external impact of national industrial policies: the example of the electronics industry, Batelle, Geneva, 1987, pp. 85-100.

70/ Ibid., p. 83.

71/ R. Erzan, J. Goto and P. Homes, "Further evidence on the restrictiveness and other effects of the MFA on exports of developing countries in the 1980s", Swedish International Development Agency, Stockholm, June 1989.

72/ Quick-reply strategies cover an important, but not yet dominant, market segment in major developed countries. A recent study on the relative shares in the United States clothing market revealed, that "fashion products" with a 10 week product life comprise about 35 per cent of the market; "normal" products with a 20 week product life represent approximately 45 per cent; and "basic products", sold throughout the year, involve approximately 20 per cent of the market. However, value added is concentrated mainly in other than the standardized "basic products". See "US textile and apparel industry: technology and structural change", reproduced in GATT document COM.TEX/57, 1988.

73/ For example, in EEC quota utilization under the MFA rose from 69 per cent in 1981 to 88 per cent in 1987. The related indicator of imports subject to binding restrictions (i.e. quota utilization rates above 90 per cent) as a percentage of restricted imports has increased from 54 to 61 per cent over the same period. A similar trend towards a firmer grip of MFA restrictions has also been observed in the United States, where average quota utilization rose from 72 per cent to 84 per cent. See R. Erzan, J. Goto, and P. Homes, op.cit., p. 10.